



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

September 25, 2020

Mardel Belotinsky
Registration Manager
Shadow Mountain Products Corporation
8100 Arroyo Circle
Gilroy, CA 95020

Subject: Registration Review Label Mitigation for Chloropicrin
Product Name: TRI-CLOR FUMIGANT
EPA Registration Number: 58266-2
Application Date: July 1, 2020
Decision Number: 565937

Dear Ms. Belotinsky:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Chloropicrin Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

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If you have any questions about this letter, please contact Marisa Wright by phone at (703) 347-0463, or via email at wright.marisa@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Linda Arrington', with a stylized flourish at the end.

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

RESTRICTED USE PESTICIDE

DUE TO ACUTE TOXICITY

For retail sale to and use by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

Tri-Clor Fumigant

ACTIVE INGREDIENT:

Chloropicrin99%

OTHER INGREDIENTS: 1%**TOTAL:**100%**ACCEPTED**

Sep 25, 2020

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under

EPA Reg. No. 58266-2

One gallon of Tri-Clor Fumigant weighs 13.88 lbs. @ 68°F (20°C).

KEEP OUT OF REACH OF CHILDREN**DANGER****PELIGRO****POISON** {Note : « Poison » will be printed in red.}

*Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)*

IN ALL CASES OF OVEREXPOSURE, GET MEDICAL ATTENTION IMMEDIATELY.
TAKE PERSON TO A DOCTOR OR TO AN EMERGENCY TREATMENT FACILITY.

FIRST AID

If inhaled:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
If on skin or clothing:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If in eyes:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lens, if present, after the first 5 minutes; then continue rinsing eye.• Call a poison control center or doctor for treatment advice.

NOTE: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Chloropicrin is a volatile liquid that is the active ingredient in tear gas. As a gas it is a powerful lachrymator. Early symptoms of overexposure are lachrymation, respiratory distress, and vomiting. Pulmonary edema may develop later. Treatment is symptomatic.

EMERGENCY PHONE NUMBER: Chemtrec, 1-800-424-9300

[See side panel(s) for additional Precautionary Statements.] {AND/OR}
[See attached label booklet for additional Precautionary Statements.] {AND/OR}
[See inside of label booklet for additional Precautionary Statements.] {AND/OR}
[See label booklet for additional Precautionary Statements and complete Directions for Use.] {AND/OR}
[See inside of label booklet for additional Precautionary Statements and complete Directions for Use.] {AND/OR}
[See attached label booklet for complete Directions for Use.] {AND}
[Date of Labeling: {Insert stamped "accepted" date.}]

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. THIS FUMIGANT IS A HIGHLY HAZARDOUS MATERIAL AND MUST BE HANDLED WITH CARE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION WHO ARE TRAINED WITH ITS PROPER USE. CONSULT YOUR DEALER REPRESENTATIVE OR THE DISTRIBUTOR FOR CORRECT PROCEDURE BEFORE USING. READ AND FOLLOW ALL LABEL DIRECTIONS AND PRODUCT LITERATURE SPECIFIC TO YOUR REQUIREMENTS. POISONOUS LIQUID AND VAPOR. INHALATION MAY BE FATAL. CHLOROPICRIN IS READILY IDENTIFIABLE BY SMELL. EXPOSURE TO VERY LOW CONCENTRATIONS OF VAPOR WILL CAUSE IRRITATION OF EYES, NOSE, AND THROAT. CONTINUED EXPOSURES AFTER IRRITATION IS EVIDENT, OR HIGHER CONCENTRATIONS, MAY CAUSE PAINFUL IRRITATION TO EYES OR TEMPORARY BLINDNESS. LIQUID WILL CAUSE CHEMICAL BURNS TO SKIN OR EYES. DO NOT GET ON SKIN, IN EYES, OR ON CLOTHING. HARMFUL OR FATAL IF SWALLOWED. CHLOROPICRIN FUMIGANT HAS THE CAPACITY TO CAUSE MARKED IRRITATION TO THE UPPER RESPIRATORY TRACT, AND IS A STRONG LACHRYMATOR (TEAR PRODUCING EYE IRRITANT). LOW CONCENTRATIONS, BELOW THOSE NECESSARY TO CAUSE SERIOUS SYSTEMIC INTOXICATION, ARE CAPABLE OF CAUSING SEVERELY PAINFUL EYE IRRITATION, HENCE WILL NOT BE VOLUNTARILY TOLERATED. HOWEVER, THE EFFECT MAY BE SO POWERFUL THAT A PERSON MAY BECOME TEMPORARILY BLINDED AND PANIC-STRICKEN AND THAT IN TURN MAY LEAD TO ACCIDENTS.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. PPE constructed of saranex, neoprene, nitrile, and chlorinated polyethylene provide short-term contact or splash protection against liquid in this product. Longer-term protection is provided by PPE constructed of viton, Teflon, and EVAL barrier laminates (for example, responder suits manufactured by Life-guard or silvershield gloves manufactured by North). Where chemical-resistant materials are required, leather, canvas, or cotton materials offer no protection from this product and must not be worn as the sole article of protection when contact with this product is possible.

When performing tasks with NO potential for contact with liquid fumigant, all handlers (including applicators) must wear:

- Long-sleeved shirt and long pants, and
- Shoes and socks.

When performing tasks with potential for contact with liquid fumigant, all handlers (including applicators) must wear:

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves,
- Chemical-resistant apron,
- Protective eyewear (Do NOT wear goggles), and
- Chemical-resistant footwear with socks.

In addition, when an air-purifying respirator is required under this label's *Directions for Use*, *Protection for Handlers*, *Respiratory Protection* and *Stop Work Triggers* sections, handlers must wear at minimum either:

- A NIOSH certified full facepiece air-purifying respirator equipped with an organic vapor (OV, NIOSH approval prefix TC-23C) cartridge and a particulate pre-filter (Type N, R, P, or HE, NIOSH approval number prefix TC-84A), or
- A gas mask with a canister approved for organic vapor (NIOSH approval number prefix TC-14G).

IMPORTANT: A self-contained breathing apparatus (SCBA) is not permitted for routine handler tasks. If responding to an emergency, when corrective action is needed to reduce air concentrations to acceptable levels, wear an SCBA. Escape-only SCBA respirators must not be used by handlers for responding to emergencies. In addition, wear PPE required for potential contact with liquid fumigant.

USER SAFETY REQUIREMENTS

- Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.
- Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets on clothing. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Supply your physician with information on Chloropicrin, which is available from your Dealer Representative or the Distributor.

ENVIRONMENTAL HAZARDS

- This pesticide is toxic to mammals and birds. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.
- Chloropicrin has certain properties and characteristics in common with chemicals that have been detected in groundwater (chloropicrin is highly soluble in water and has low adsorption to soil).
- For untarped applications of chloropicrin, leaching and runoff may occur if there is heavy rainfall after soil fumigation.

PHYSICAL OR CHEMICAL HAZARDS

Do not use containers or application equipment made of magnesium, aluminum, or their alloys, as under certain conditions this fumigant may be severely corrosive to such metals. [See the *Calibration, Set-up, Repair and Maintenance for Application Rigs and System Controls and Integrity* sections of this labeling for further requirements for application equipment.] Do not permit water to be used to clean the fumigant pressure system, as corrosion will result. Diesel oil is satisfactory for this purpose.

DIRECTIONS FOR USE

Restricted Use Pesticide

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only handlers may be in the application block from the start of the application until the entry restricted period ends, and in the buffer zone during the buffer zone period. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS). ***No instructions elsewhere on this labeling relieve users from complying with the requirements of the WPS.***

For the entry restricted period and notification requirements, see the *Entry Restricted Period and Notification* section of this labeling. PPE For Entry During the Entry-Restricted Period: PPE for entry that is permitted by this labeling is listed in the *Personal Protective Equipment (PPE)* section of this labeling.

Terms Used in This Labeling

Soil Fumigant Training Program: Certified applicator training that provides information on (1) how to correctly apply the fumigant, including how to comply with new label requirements; (2) how to protect handlers and bystanders; (3) how to determine buffer zone distances; (4) how to complete an FMP and the post-application summary; (5) how to determine when weather and other

site-specific factors are not favorable for fumigant application; (6) how to comply with required GAPs and how to document compliance with GAPs in the FMP; and (7) how to develop and implement emergency response plans.

Fumigant Safe Handling Information: Information that must be provided annually to handlers must include the following: (1) what fumigants are and how they work, (2) safe application and handling of soil fumigants, (3) air monitoring and respiratory protection requirements for handlers, (4) early signs and symptoms of exposure, (5) appropriate steps to take to mitigate exposures, (6) what to do in case of an emergency, and (7) how to report incidents.

Application Block: Area within the perimeter of the fumigated portion of a field or greenhouse (including furrows, irrigation ditches, roadways). The perimeter of the application block is the border that connects the outermost edges of total area treated with the fumigant product.

Application Rate: The ratio of fumigant mass applied compared to the soil surface area (e.g., pounds of product per acre). The application rate is expressed on this labeling in terms of either the “treated area application rate” or the “broadcast equivalent application rate.” The “treated area application rate” relates to only the rate of fumigant applied to the portion of the field that is fumigated (e.g., rate within the bed or strips). The “broadcast equivalent application rate” relates to the rate of fumigant applied within the entire perimeter of the application block. For bedded and strip applications, the “broadcast equivalent application rate” must be calculated to determine the buffer zone distance required by this labeling.

Start of the Application: The time at which the fumigant is first delivered/dispensed into the soil in the application block.

Application is Complete: The time at which the fumigant has stopped being delivered/dispensed into the soil and the soil has been sealed; drip lines have been purged (if applicable).

Entry Restricted Period: This period begins at the start of the application and expires depending on the application method and if tarps are used when the tarps are perforated and removed. Entry into the application block during this period is only allowed for appropriately PPE-equipped handlers performing handling tasks. See the *Entry Restricted Period and Notification* section for additional information.

Buffer Zone: An area established around the perimeter of each application block. The buffer zone must extend outward from the edge of the application block perimeter equally in all directions.

Buffer Zone Period: Begins at the start of the application and lasts for a minimum of 48-hours after the application is complete. Non-handlers must be excluded from the buffer zone during the buffer zone period.

Difficult to Evacuate Sites: Pre-K to Grade 12 schools, state licensed daycare centers, nursing homes, assisted living facilities, hospitals, in-patient clinics, and prisons.

Owner: Any person who has a present possessory interest (fee, leasehold, rental, or other) in an agricultural establishment. A person who has both leased such agricultural establishment to another person and granted that same person the right and full authority to manage and govern the use of such agricultural establishment is not an owner. See definition of “owner” in WPS (40 CFR §170.3).

Roadway: Portion of a street or highway improved, designed or ordinarily used for vehicular travel, exclusive of the sidewalk or shoulder even if such sidewalk or shoulder is used by persons riding bicycles. In the event a highway includes two or more separated roadways, the term *roadway* shall refer to any such roadway separately.

Representative Handling Task: For air monitoring, the locations and handler activities sampled must represent each handler's exposure occurring within the application block. For example, for an

application consisting of a seven-handler crew (1 tractor driver, 1 tractor co-pilot, 4 shovelers, and 1 certified applicator supervising) two breathing zone samples could be collected: one sample for the tractor co-pilot and one sample for a downwind shoveler. Results of previous sampling may indicate which tasks and locations are worst case and therefore representative of all handlers.

B25 Tarp: The names of tarps meeting the requirements of B25 Tarp will be displayed on the US EPA website at <https://www.epa.gov/soil-fumigants/tarps>. For all buffer zones in California, see the California requirements at <https://www.cdpr.ca.gov/chloropicrin.htm>.

Application Restrictions

- The use of this product is restricted to the methods described in this label.
- Apply TRI-CLOR FUMIGANT only through drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

For Applications in California Only:

Use the buffer zone distances specified by the California Department of Pesticide Regulation, which are found at the website listed below. Additional California Department of Pesticide Regulation requirements must also be followed, including:

- Additional tarp requirements
- Application time restrictions
- Additional buffer zone restrictions for overlapping buffer zones and credits
- Additional emergency preparedness and response requirements

The certified applicator must follow all California buffer zone requirements and California restrictions that are specified at: <https://www.cdpr.ca.gov/chloropicrin.htm>.

Product Information

TRI-CLOR FUMIGANT is a pre-plant fumigant for the control of soil-borne pests, such as wireworms and nematodes, and diseases caused by certain species of *Pythium*, *Phytophthora*, *Fusarium*, and *Verticillium*.

Use Precautions

- This fumigant is a highly hazardous material and must be handled with care only by certified applicators or persons under their direct supervision who are trained with its proper use.
- Comply with all local regulations and ordinances. Obtain an application permit from Agricultural Regulatory Agencies as required.
- Obtain medical assistance at once in case of illness after exposure, and do not allow conditions which could accidentally cause further exposure until recovery is complete.
- Never fumigate alone. It is imperative to always have an assistant and proper protection equipment, to aid in case of an accident.

- Drivers of application equipment must advise other workers of all precautions and procedures. In addition, drivers must instruct their helpers in the mechanical operation of the tractor and how to work with the tractor driver while fumigating.
- Handle this fumigant in the open, when possible, with the operator “upwind” from the container where there is good ventilation.
- Keep pets, livestock, and other domestic animals out of the treated area during application and during tarp perforation and/or removal if a tarp is used.
- Fumigation may temporarily raise the level of ammonia nitrogen and soluble salts in the soil. This is most likely to occur when heavy rates of fertilizer and fumigant are applied to soils that are either cold, wet, acid, or high in organic matter. To avoid injury to plant roots, fertilize as indicated by soil tests made after fumigation. To avoid ammonia injury and/or nitrate starvation to crops, avoid using fertilizers containing ammonia salts and use only fertilizers containing nitrates until after the crop is well established and the soil temperature is about 65°F. Liming highly acid soils before fumigation stimulates nitrification and reduces the possibility of ammonia toxicity.

Certified Applicator Training

Any certified applicator supervising a soil fumigant application must have successfully completed one of the soil fumigant training programs listed on the following EPA website <https://www.epa.gov/soil-fumigants/soil-fumigant-training-certified-applicators> for the active ingredient(s) in this product. The training must be completed in the time frames listed on the website. The FMP must document the date and location where the soil fumigant training program was completed.

Handlers

The following activities are prohibited from being performed by anyone other than persons who have been appropriately trained and equipped as handlers in accordance with the requirements in WPS (40 CFR Part 170):

- Monitoring fumigant air concentrations;
- Cleaning up fumigant spills (this does not include emergency personnel not associated with the application);
- Handling or disposing of fumigant containers;
- Cleaning, handling, adjusting, or repairing the parts of application equipment that may contain fumigant residues; and
- Performing any handling tasks as defined by the WPS (40 CFR 170).

The following activities are prohibited from being performed in the application block from the start of the application until the entry restricted period ends and in the buffer zone during the buffer zone period by anyone other than persons who have been appropriately trained and equipped as handlers in accordance with the requirements in WPS (40 CFR Part 170). (NOTE: persons repairing and monitoring tarps are considered handlers for the duration listed below). Prohibited activities (except for trained and equipped handlers) include:

- Participating in the application as supervisors, loaders, drivers, tractor co-pilots, shovelers, cross ditchers, or as other direct application participants;
- Installing, repairing, operating, or removing irrigation equipment;
- Performing scouting, crop advising, or monitoring tasks;

- Installing, perforating (cutting, punching, slicing, poking), or removing tarps; and
- Repairing or monitoring tarps until 14 days after application is complete if tarps are not perforated and removed during those 14 days.

NOTE: see *Tarp Perforation and/or Removal* section on this labeling for requirements about when tarps are allowed to be perforated.

Handlers do not include local, state, or federal officials performing inspection, sampling, or other similar official duties.

Protection for Handlers

Supervision of Handlers:

For all applications, except water run, from the start of the application until the application is complete, a certified applicator must be at the application block in the line of sight of the application and must directly supervise all persons performing handling activities.

For water-run applications (e.g., drip), a certified applicator must be in the line of sight of the application at the start of the application, including set-up, calibration, and initiation of the application. A certified applicator may leave but must return at least every two hours to visually inspect the equipment to ensure proper functioning, and must directly supervise all WPS-trained handlers until the application is complete. WPS-trained handlers may perform these monitoring functions in place of a certified applicator but they must be under the supervision of a certified applicator and be able to communicate with a certified applicator at all times during monitoring activities via cell phone or other means.

For handling activities that take place after the application is complete until the entry restricted period expires, the certified applicator is not required to be on-site, but must have communicated in a manner that can be understood by the site owner and handlers responsible for carrying out those activities the information necessary to comply with the label and procedures described in the FMP (e.g., emergency response plans and procedures).

IMPORTANT: This requirement does not override the requirements in the Worker Protection Standard for Agricultural Pesticides for information exchange between operators of agricultural establishments and commercial pesticide applicators.

The certified applicator must provide **Fumigant Safe Handling Information** to each handler or confirm that within the past 12 months, each handler has received **Fumigant Safe Handling Information** in a manner that he/she can understand. **Fumigant Safe Handling Information** will be provided where this product is purchased or at <https://www.epa.gov/soil-fumigants/soil-fumigant-training-certified-applicators>.

For all handling tasks at least two handlers must be present.

Exception: After the application is complete, only one trained handler is required to perform fumigant site monitoring tasks outside of the buffer zone.

Exclusion of Non Handlers from the Application Block and Buffer Zone:

The certified applicator supervising the application and the owner of the establishment where the application is taking place must make sure that all persons who are not trained and PPE-equipped and who are not performing one of the handling tasks as stated in this labeling are:

- excluded from the application block during the entry restricted period, and
- excluded from the buffer zone during the buffer zone period (see buffer zone exemption for transit on roadways in *Buffer Zone Requirements* section).

Local, state, or federal officials performing inspection, sampling, or other similar official duties are not excluded from the application block or the buffer zone by this labeling. The certified applicator supervising the application and the owner of the establishment where the application is taking place are not authorized to, or responsible for, excluding those officials from the application block or the buffer zone.

Providing, Cleaning, and Maintaining PPE:

The employer of any handler (as stated in this label) must make sure that all handlers are provided and correctly wear the required PPE. The PPE must be cleaned and maintained as required by the Worker Protection Standard for Agricultural Pesticides.

Air Purifying Respirator Availability:

The employer of any handler must confirm that an air-purifying respirator and appropriate cartridges/canisters of the type specified in the *PPE* section of this labeling are immediately available for each handler who will wear one. At a minimum two handlers must have the appropriate air-purifying respirator and cartridges/canisters available (see *Respirator Fit Testing, Medical Qualification, and Training* section for additional requirements).

Exception: Air-purifying respirators do not need to be made available for handlers performing fumigant site monitoring tasks outside of the buffer zone.

Cartridges or canisters must be replaced when odor or sensory irritation from this product becomes apparent during use, if the measured concentration of chloropicrin is greater than or equal to 1.5 ppm, or after 8 hours of cumulative use, whichever occurs first.

Respirator Fit Testing, Medical Qualification, and Training:

Using a program that conforms to OSHA's requirements (see 29 CFR Part 1910.134), employers must verify that any handler who uses a respirator is:

- Fit-tested and fit-checked,
- Trained, and
- Examined by a qualified medical practitioner to ensure physical ability to safely wear the style of respirator to be worn. A qualified medical practitioner is a physician or other licensed health care professional who will evaluate the ability of a worker to wear a respirator. The initial evaluation consists of a questionnaire that asks about medical conditions (such as a heart condition) that would be problematic for respirator use. If concerns are identified, then additional evaluations, such as a physical exam, might be necessary. The initial evaluation must be done before respirator use begins. Handlers must be reexamined by a qualified medical practitioner if their health status or respirator style or use-conditions change.
- Upon request by local/state/federal/tribal enforcement personnel, employers must provide documentation demonstrating how they have complied with these requirements.

Respiratory Protection and Stop Work Triggers:

The following procedures must be followed to determine whether an air-purifying respirator (full facepiece or gas mask) is required or if operations must cease for any person performing a handling task (except for fumigant site monitoring outside of the buffer zone) as stated in this label.

- If at any time any handler experiences sensory irritation (tearing, burning of the eyes or nose), then either:
 - An air-purifying respirator (full facepiece or gas mask) must be worn by all handlers who remain in the application block or surrounding buffer zone, or
 - Operations must cease and handlers not wearing an air-purifying respirator must leave the application block and surrounding buffer zone.
- Handlers can remove air-purifying respirators (full facepiece or gas mask) or resume operations if two consecutive breathing zone samples taken at the handling site at least 15 minutes apart show that levels of chloropicrin have decreased to less than 0.15 ppm, provided that handlers do not experience sensory irritation. During the collection of air samples, an air-purifying respirator (full facepiece or gas mask) must be worn by the handler taking the air samples. Samples must be taken at the location where the irritation was first experienced.
- When using monitoring devices to monitor air concentration levels, a direct read detection device, such as an electronic device or a colorimetric device (e.g., Matheson-Kitagawa, Draeger, or Sensidyne) must be used. The devices must have sensitivity of at least 0.15 ppm for chloropicrin. Persons using direct read detection devices must follow the manufacturer's directions.
- When breathing zone samples are required, they must be taken outside respiratory protection equipment and within a 10-inch radius of the handler's nose and mouth.
- When air-purifying respirators (full facepiece or gas mask) are worn, air monitoring samples must be collected at least every 2 hours in the breathing zone of a handler performing a representative handling task.
- If at any time: (1) a handler experiences sensory irritation when wearing an air-purifying respirator (full facepiece or gas mask), or (2) a chloropicrin air sample is greater than or equal to 1.5 ppm, then all handler activities must cease and handlers must be removed from the application block and surrounding buffer zone.
- Handlers can resume work activities without air-purifying respirators (full facepiece or gas mask) if two consecutive breathing zone samples taken at the handling site at least 15 minutes apart show levels of chloropicrin have decreased to less than 0.15 ppm, provided that handlers do not experience sensory irritation. During the collection of air samples an air-purifying respirator (full facepiece or gas mask) must be worn by the handler taking the air samples. Samples must be taken at the location where the irritation was first experienced or where the sample(s) were greater than or equal to 1.5 ppm.
- Handlers can resume work activities if all of the following conditions exist provided an air-purifying respirator (full facepiece or gas mask) is worn:
 - two consecutive breathing zone samples for chloropicrin taken at the handling site at least 15 minutes apart must be less than 1.5 ppm.
 - handlers do not experience sensory irritation while wearing the air-purifying respirator (full facepiece or gas mask), and
 - filter cartridges/canisters have been changed.

- During the collection of air samples an air-purifying respirator (full facepiece or gas mask) must be worn by the handler taking the air samples. Samples must be taken at the location where the irritation was first experienced or where the sample(s) were greater than or equal to 1.5 ppm.

Tarp Perforation and/or Removal

IMPORTANT: Persons perforating, repairing, removing, and/or monitoring tarps are defined, within certain time limitations, as handlers (see *Handlers* section), and they must be provided the PPE and other protections for handlers as required on this labeling and in the Worker Protection Standard for Agricultural Pesticides. For applications in California follow the information at <https://www.cdpr.ca.gov/chloropicrin.htm>. (See page 6.)

- B25 tarps (see definition on page 6) used for broadcast applications must not be perforated until a minimum of 9 days (216 hours) have elapsed after the application is complete, and must not be removed until a minimum of 1 day (24 hours) after perforation. Tarps may be perforated or removed earlier if *Adverse weather* [as defined below] has compromised the integrity of the tarp.
- All other tarps, except B25 tarps, must not be perforated until a minimum of 5 days (120 hours) have elapsed after the application is complete, unless a weather condition exists which necessitates early tarp perforation or removal (see *Early Tarp Removal for Broadcast Applications Only* and *Early Tarp Perforation during Flood Prevention Activities for Bedded Applications Only* requirements).
- If tarps are perforated within 14 days after the application is complete, tarp removal must not begin until at least 2 hours after tarp perforation is complete.
- If tarps are perforated but not removed within 14 days after the application is complete, planting or transplanting must not begin until at least 48 hours after the tarp perforation is complete.
- If tarps are not perforated or removed within 14 days after the application is complete, planting or transplanting may take place while the tarps are being perforated.
- Each tarp panel used for broadcast application must be perforated.
- Tarps may be perforated manually ONLY for the following situations:
 - At the beginning of each row when a coulter blade (or other device which performs similarly) is used on a motorized vehicle such as an ATV.
 - In fields that are 1 acre or less.
 - During flood prevention activities.
- In all other instances tarps must be perforated (cut, punched, poked, or sliced) only by mechanical methods.
- Tarp perforation for broadcast applications must be completed before noon.
- For broadcast applications, tarps must not be perforated if rainfall is expected within 12 hours.
- Early Tarp Removal for Broadcast Applications Only:
 - Tarps may be removed before the required 5 days (120 hours) if adverse weather conditions have compromised the integrity of the tarp, provided that the compromised tarp poses a safety hazard. *Adverse weather* includes high wind, hail, or storms that blow tarps off the field and create a hazard, e.g., tarps blowing into power lines and onto roads. A *compromised tarp* is a tarp that due to an adverse weather condition is no longer performing its intended function and is creating a hazard.

- Early Tarp Perforation during Flood Prevention Activities:
 - Tarp perforation is allowed before the 5 days (120 hours) have elapsed.
 - For Bedded Applications: Tarps must be immediately retucked and packed after tarp removal.
 - For Broadcast Applications: Tarps may be perforated and/or removed prior to a major rain event, to prevent flooding.

Entry Restricted Period and Notification

Entry Restricted Period

Entry into the application block (including early entry that would otherwise be permitted under the WPS) by any person – other than a correctly trained and PPE-equipped handler who is performing a handling task listed on this labeling – is PROHIBITED - from the start of the application until:

- 5 days (120 hours) after the application is complete for untarped applications, or
- 5 days (120 hours) after the application is complete if tarps are not perforated and removed for at least 14 days after the application is complete, or
- 48 hours after tarp perforation is complete if tarps will be perforated within 14 days after the application is complete and will not be removed for at least 14 days after the application is complete, or
- tarp removal is completed if tarps are both perforated and removed less than 14 days after the application is complete.

NOTES:

- See *Tarp Perforation and/or Removal* section on this labeling for requirements about when tarps are allowed to be perforated.
- If early tarp removal occurs for a broadcast application, the entry restricted period is a minimum of 5 days after the application is complete.
- When listing application information for soil fumigant applications to comply with part 170.122 of the WPS, list the entry restricted period time frame in place of the REI.

Notification

Notify workers of the application by warning them orally and by posting Fumigant Treated Area signs. The signs must bear the skull and crossbones symbol and state:

- “DANGER/PELIGRO,”
- “Area under fumigation, DO NOT ENTER/NO ENTRE,”
- “Chloropicrin Fumigant in USE,”
- “the date and time of fumigation,
- the date and time entry restricted period is over,
- “TRI-CLOR FUMIGANT”, and
- Name, address, and telephone number of the certified applicator in charge of the fumigation.

Post the Fumigant Treated Area sign instead of the WPS sign for this application, but follow all WPS requirements pertaining to location, legibility, text size, and sign size (40 CFR §170.120).

Post Fumigant Treated Area signs at all entrances to the application block no sooner than 24 hours prior to application.

Fumigant Treated Area signs must remain posted for no less than the duration of the entry restricted period.

Fumigant Treated Area signs must be removed within 3 days after the end of the entry restricted period.

Mandatory Good Agricultural Practices (GAPs)

The following GAPs must be followed during all fumigant applications.

Tarps (when tarps are used in TRI-CLOR FUMIGANT applications)

- A written tarp plan must be developed and included in the FMP.
- Once a tarp is perforated, the application is no longer considered tarped.

Weather Conditions

- To determine if unfavorable weather conditions exist or are predicted (see *Identifying Unfavorable Weather Conditions* section) and whether an application should proceed, the National Weather Service weather forecast must be checked by the certified applicator supervising the application:
 - on the day of, but prior to the start of the application, and
 - on a daily basis during the application if the time period from the start of the application until the application is complete is greater than 24 hours.
- Do not apply if an air stagnation advisory issued by the National Weather Service is in effect for the area in which the application is planned, during the application, or the 48 hours after the application is complete.
- Do not apply if light wind conditions (< 2 mph) are forecast to persist for more than 18 consecutive hours from the time the application starts until 48 hours after the application is complete.
- Detailed National Weather Service forecasts for local weather conditions, wind speed, and air stagnation advisories may be obtained on-line at: <https://www.nws.noaa.gov>, on NOAA weather radio, or by contacting your local National Weather Service Forecasting Office.

Identifying Unfavorable Weather Conditions

- Unfavorable weather conditions block upward movement of air, which results in trapping fumigant vapors near the ground. The resulting air mass can move off-site in unpredictable directions. These conditions typically exist within an hour prior to sunset and continue past sunrise and may persist as late as noontime. Unfavorable conditions are common on nights with limited cloud cover and light to no wind and their presence can be indicated by ground fog or smog and can also be identified by smoke from a ground source that flattens out below a ceiling layer and moves laterally in a concentrated cloud.

Soil Preparation

- Soil must be properly prepared and at the surface generally be free of large clods. The area to be fumigated must be tilled to a depth of 5 to 8 inches.
- Field trash must be properly managed. Residue from a previous crop must be worked into the soil to allow for decomposition prior to the start of the application. Little or no crop

residue shall be present on the soil surface. Crop residue that is present must not interfere with the soil seal. Removing the crop residue prior to the start of the application is important to limit the natural “chimneys” that occur in the soil when crop residue is present. These “chimneys” allow the soil fumigants to move through the soil quickly and escape into the atmosphere. This may create potentially harmful conditions for workers and bystanders and limit the efficacy of the fumigant. However, crop residue on the field serves to prevent soil erosion from both wind and water and is an important consideration. To accommodate erosion control, fumigant efficacy, and human health protection, clear fields of crop residue as close to the start of the application as possible to limit the length of time that the soil would be exposed to potentially erosive weather conditions.

TRI-CLOR FUMIGANT

Bedded and Broadcast Shank Applications: Additional GAPs

In addition to the GAPs required for all TRI-CLOR FUMIGANT soil fumigation applications, the following GAPs apply for injection applications:

Tarps (when tarps are used in TRI-CLOR FUMIGANT applications)

- Tarps must be installed immediately after the fumigant is applied to the soil.

Soil Preparation

- Trash pulled by the shanks to the ends of the field must be covered with tarp, or soil, depending on the application method before making the turn for the next pass.

Soil Temperature

- For *Deep Ripped Untarped Shallow Broadcast* applications (Not For Use in California): The maximum soil temperature at the depth of injection must not exceed 70°F at the beginning of the application.
- For all other applications, the maximum soil temperature at the depth of injection must not exceed 90°F at the beginning of the application.
 - If air temperatures have been above 100°F in any of the three days prior to the start of the application, then soil temperature must be measured and recorded in the FMP. Record temperature measurements at the application depth or 12 inches, whichever is shallower.

Application Methods and Equipment

- Apply TRI-CLOR FUMIGANT with chisel equipment or a Noble plow.
- For shallow (injection depth minimum 8-10 inches) broadcast work, use a shank spacing of 9-12 inches.
- For the *Deep Ripped Untarped Shallow Broadcast* application method (Not For Use in California), TRI-CLOR FUMIGANT is injected into the soil using ripper shanks that simultaneously rip the ground to a minimum depth of 18 inches below the soil surface while applying the product via wings to a minimum depth of 12 inches below the final soil surface and 4 inches from the side of the shanks.
- For deep applications (injection depth minimum 18 inches), a shank spacing up to 24 inches may be used; however, it is recommended that the shank spacing not exceed 18 inches.

- When applying TRI-CLOR FUMIGANT with a Noble plow, use an outlet spacing of 9-12 inches along the sweeps.

Application Depth

- *For Tarped-Broadcast and Tarped-Bedded Applications:* The injection point must be a minimum of 8 inches from the nearest final soil/air interface.
- *For Untarped-Bedded Applications:* The injection point must be a minimum of 12 inches from the nearest final soil/air interface.
- *For Untarped-Broadcast Applications:* The injection point must be a minimum of 10 inches from the nearest final soil/air interface.
- *For Untarped-Broadcast Deep Applications:* The injection point must be a minimum of 18 inches from the nearest final soil/air interface.
- *For Deep Ripped Untarped Shallow Broadcast Applications (Not For Use in California):* The injection point must be a minimum of 12 inches from the nearest final soil/air interface.

Soil Sealing

- *For Broadcast Untarped Applications:* Use a disc or similar equipment to uniformly mix the soil to at least a depth of 3 to 4 inches to eliminate the chisel or plow traces. Following elimination of the chisel trace, the soil surface must be compacted with a cultipacker, ring roller, orchard float with a weighted/ring roller, or roller in combination with tillage equipment. When using equipment similar to the Yetter applicator (chisel trace disruption and soil sealing are done with one implement), additional tillage and compaction are not required.
- *For Bedded Applications:* Preformed beds must be sealed by disruption of the chisel trace using press sealers, bed shapers, cultipackers, or by re-shaping (e.g., relisting, lifting, replacing) the beds immediately following injection. Beds formed at the time of application must be sealed by disrupting the chisel trace using press sealers, or bed shapers.
- *For Tarped Applications:* The use of a tarp does not eliminate the need to minimize chisel traces prior to application of the tarp, such as by using a Noble plow or other injection shank that disrupts the chisel traces.
- *For Deep Ripped Untarped Shallow Broadcast Applications (Not For Use in California):* The soil must be sealed immediately after the fumigant application, with a disk followed by a packer.

Soil Moisture

- The soil must be moist 9 inches below the surface. The amount of moisture needed in this zone will vary according to soil type. Surface soil generally dries rapidly and must not be considered in this determination.
- Soil moisture must be determined using one of the following methods:
 - the USDA Feel and Appearance Method for testing (see below), or
 - an instrument, such as a tensiometer.
- Available water capacity must be equal to or greater than 50% for shank applications. If there is less than 50% available water capacity 9 inches below the surface, the soil moisture must be adjusted. If irrigation is not available and there is adequate soil moisture below 9 inches, soil moisture can be adjusted by disking or plowing before the start of the application. To

conserve existing soil moisture, pretreatment irrigation or pretreatment tillage should be done as close to the start of the application as possible.

- Measure soil moisture at a depth of 9 inches at either end of the field, no more than 48 hours prior to the start of the application.
- For *Deep Ripped Untarped Shallow Broadcast* applications (Not For Use in California): Available water capacity must also be equal to or greater than 50% at the 4-inch soil depth and deeper. Measure soil moisture at depths of 4 inches *and* 9 inches, at either end of the field, no more than 48 hours prior to the start of the application.

The USDA Feel and Appearance Method for estimating soil moisture as appropriate for the soil texture:

- For **coarse** textured soils (fine sand and loamy fine sand), the soil is moist enough (50 to 75% available water capacity) to form a weak ball with loose and clustered sand grains on fingers, darkened color, moderate water staining on fingers, will not ribbon.
- For **moderately coarse** textured soils (sandy loam and fine sandy loam), the soil is moist enough (50 to 75% available water capacity) to form a ball with defined finger marks, very light soil/water staining on fingers, darkened color will not stick.
- For **medium** textured soils (sandy clay loam, loam, and silt loam), the soil is moist enough (50 to 75% available water capacity) to form a ball, very light staining on fingers, darkened color, pliable, and forms a weak ribbon between the thumb and forefinger.
- For **fine** textured soils (clay, clay loam, and silty clay loam), the soil is moist enough (50 to 75% available water capacity) to form a smooth ball with defined finger marks, light soil/water staining on fingers, ribbons between thumb and forefinger.
- For **fields with more than one soil texture**, soil moisture content in the lightest textured (most sandy) areas must comply with this soil moisture requirement. Whenever possible, the field should be divided into areas of similar soil texture and the soil moisture of each area should be adjusted as needed. Coarser textured soils can be fumigated under conditions of higher soil moisture than finer textured soils; however, if the soil moisture is too high, fumigant movement will be retarded and effectiveness of the treatment will be reduced. Previous and/or local experience with the soil to be treated or the crop to be planted can often serve as a guide to conditions that will be acceptable. If there is uncertainty in determining the soil moisture content of the area to be treated, a local extension service agent, soil conservationist, or pest control advisor (agriculture consultant) should be consulted for assistance.

Prevention of End Row Spillage

- Do not apply or allow fumigant to spill onto the soil surface. For each injection line either have a check valve located as close as possible to the final injection point, or drain/purge the line of any remaining fumigant prior to lifting injection shanks from the ground.
- Do not lift injection shanks from the soil until the shut-off valve has been closed and the fumigant has been depressurized (passively drained) or purged (actively forced out via air compressor) from the system.

Calibration, Set-up, Repair, and Maintenance for Application Rigs

- Brass, carbon steel, or stainless steel fittings must be used throughout. Polyethylene tubing, polypropylene tubing, Teflon[®] tubing or Teflon[®]-lined steel braided tubing must be used for

all low pressure lines, drain lines, and compressed gas or air pressure lines. All other tubing must be Teflon®-lined steel braided.

- Galvanized, PVC, nylon, or aluminum pipe fittings must not be used.
- All rigs must include a filter to remove any particulates from the fumigant and for pressurized systems a check valve to prevent backflow of the fumigant into the pressurizing cylinder or the compressed air system.
- Rigs must include a flow meter or a constant pressure system with orifice plates to ensure the proper amount of fumigant is applied.
- To prevent the backflow of fumigant into the compressed gas cylinder (e.g., nitrogen, other inert gas, compressed air), if used, applicators must:
 - Ensure that positive pressure is maintained in the compressed gas cylinder at not less than 200 psi during the entire time it is connected to the application rig, if a compressed gas cylinder is used. *(This is not required for a compressed air system that is part of the application rig because if the compressor system fails the application rig will not be operable.)*
 - Ensure that application rigs are equipped with properly functioning check valves between the compressed gas cylinder or compressed air system and the fumigant cylinder. The check valve is best placed on the outlet side of the pressure regulator, and is oriented to only allow compressed gas to flow out of the cylinder or compressed air out of the compressed air system.
 - A pressure relief valve must be installed between the regulator and the check valve to ensure a regulator failure does not over pressurize the fumigant cylinder.
 - Always pressurize the system with compressed gas or by use of a compressed air system before opening the fumigant cylinder valve.
- Before using a fumigation rig for the first time or when preparing it for use after storage, the operator must check the following items carefully:
 - Check the filter, and clean or replace the filter element as required.
 - Check all tubes and chisels to make sure they are free of debris and obstructions.
 - Check and clean the orifice plates and screen checks, if installed.
 - Pressurize the system with compressed gas or compressed air, and check all fittings, valves, and connections for leaks using soap solution.
- Install the fumigant cylinder, and connect and secure all tubing. Slowly open the compressed gas or compressed air valve, and increase the pressure to the desired level. Slowly open the fumigant cylinder valve, always watching for leaks.
- In case of the rupture of a hose or fitting while applying the fumigant, immediately stop the tractor or motor. Get off the tractor and get to a place where the problem can be observed without exposure to the fumes. Approach from upwind, with respiratory protection if required and make the necessary repairs.
- When changing cylinders, be certain they are turned off and the fumigant system is not under pressure.
- When the application is complete, close the fumigant cylinder valve and blow residual fumigant out of the fumigant lines into the soil using compressed gas or compressed air. If the rig uses a centrifugal pump instead of compressed gas to inject fumigant into the soil, you may clear residual fumigant from the fumigant lines using an application wand connected to the system's low point via a drain hose. Place the wand in the soil until all residual fumigant has drained from the system. The wand and drain hose must be free of dirt to allow proper

drainage. At the end of the application season, disconnect all fumigant cylinders from the application rig. At the end of the season, seal all tubing openings with tape to prevent the entry of insects and dirt.

Application equipment must be calibrated and all control systems must be working properly. Proper calibration is essential for application equipment to deliver the correct amount of fumigant uniformly to the soil. Refer to the manufacturer's instructions on how to calibrate your equipment; usually the equipment manufacturer, fumigant dealer, or Cooperative Extension Service can provide assistance.

Planting Interval

After application, leave the soil undisturbed for 10 to 14 days. Wet soil retards diffusion of the fumigant, thus requiring a longer soil exposure period. At the end of the soil exposure period, aerate the soil by plowing or deep cultivation. If heavy rains accompanied by low temperatures occur during the soil exposure period, working the soil several times is essential for thorough aeration. Aeration is usually complete when the odor of the fumigant is no longer evident.

TRI-CLOR FUMIGANT Drip Applications: Additional GAPs

In addition to the GAPs required for all TRI-CLOR FUMIGANT soil fumigation applications, the following GAPs apply for drip applications. The certified applicator or WPS trained handlers under the supervision of and in communication with the certified applicator shall shut the system down and make necessary adjustments should the need arise.

Soil Preparation

- Till fields with known plowpans because they can lead to puddling of the fumigant due to inadequate soil drainage.
- Beds should be listed, shaped and ready for planting.

Soil Moisture

- For all soil types, pre-application moisture should be dry enough to prevent soil saturation and bed collapse once application and flushing is complete.
- Soil moisture should be at 50% of field capacity in the top 2-3" at the time of TRI-CLOR FUMIGANT application.

Product and Dosage

- Plan the application by calculating the amount of TRI-CLOR FUMIGANT required at the appropriate rate for the crop, treated area, and target pest.
- TRI-CLOR FUMIGANT must be applied through a drip irrigation system to wet the soil thoroughly in the area being treated. Drip emitters should be spaced 8-12 inches apart.
- Pre-mix with surfactant prior to application through drip system at a ratio of 1:20 surfactant to TRI-CLOR FUMIGANT. Information regarding the proper surfactant for your specific field conditions should be provided by company representatives when ordering this product. If additional information is needed, contact your company representative at (831) 637-0195.
- The surfactant may be metered into the supply line for TRI-CLOR FUMIGANT and then passed through a mixing device such as a centrifugal pump or static mixer, to assure proper

agitation. The mixture of TRI-CLOR FUMIGANT and surfactant must then be metered into the water supply line and passed through a mixing device such as a centrifugal pump or static mixer, to assure proper agitation before it is distributed into the drip irrigation system.

- Meter TRI-CLOR FUMIGANT into the drip system according to the dosage. An adequate concentration of TRI-CLOR FUMIGANT must be present in order to be effective. At no time should the concentration of TRI-CLOR FUMIGANT exceed 1,500 ppm by weight in the drip line. For example, a 300 pounds per treated acre application rate would require 24,000 gallons of water per treated acre to deliver a 1,500 ppm concentration.

System Controls and Integrity

- The irrigation system (main lines, headers, drip tape) must be thoroughly checked for leaks before the start of application. Leak detection requires that the irrigation system be at full operating pressure. The amount of time needed at full operating pressure will vary by irrigation system design. Look for puddling along major pipes (holes in pipes or leaky joints), at the top and ends of rows (leaky connection, open drip tape), and on the bed surface (damaged drip tape, malfunctioning emitters). Any leaks discovered during the pre-application check must be repaired prior to the start of the application.
- To inject fumigant, use a metering system (such as a positive pressure system, positive displacement injection pump, diaphragm pump, or a Venturi system) effectively designed and constructed of materials that are compatible with the fumigant and capable of being fitted with system interlocking controls. Do not use containers, pumps, or other equipment made of aluminum, magnesium or their alloys as chloropicrin can be corrosive to such metals.
- The system must contain:
 - A functional check valve, a vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination and backflow;
 - A functional, automatic, quick-closing check valve to prevent the flow of fluids back toward the fumigant container;
 - A functional, normally closed solenoid-operated valve located on the intake side of the injection point and connected to the system interlock to prevent the fumigant from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down; and
 - Functional interlocking controls to automatically shut off the fumigant injection when the irrigation water flow stops or decreases to the point where fumigant distribution is adversely affected.
- Crop injury and/or lack of effectiveness can result from non-uniform distribution of treated water.
- If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Site of Injection and Irrigation System Layout

- Site of injection must be as close as practical to the area being treated (such as direct injection of fumigant into the header pipe/manifold or into an aboveground delivery pipe attached to the header). If the fumigant is injected into a main line, make sure the irrigation pipe is able to be cleared of all fumigant as the fumigant may pool in low sections of the pipe. Also make sure that valves on lateral lines of the main line are closed if these lateral

lines lead to areas not being fumigated at the time of the application.

System Flush

- After application of the fumigant, continue to drip-irrigate the area with water to flush the irrigation system. Do not allow the fumigant to remain in the irrigation system after the application is complete. The total volume of water, including the amount used for flushing the irrigation system, must be adequate to completely remove the fumigant from the lines, but should be less than the amount that could over-saturate the beds (bed collapse can occur from over-saturation) and should not exceed 1.5 acre-inches (40,000 gallons) of water per acre. If common lines are used for both the fumigant application and water seal (if a water seal is applied) these lines must be adequately flushed before starting the water seal and/or normal irrigation practices.

Soil Sealing

- If tarps are used, they must be put in place before the application starts.
- Tarp edges must be buried along the furrow and at the ends of rows.

Application Depth

- *For Untarped Applications:* The drip tape must be buried at a minimum of 5 inches.

Planting Interval

- Do not disturb treated soil for 2 weeks. Wet soil retards diffusion of the fumigant thus requiring a longer aeration period. Aeration is usually complete when the odor of the fumigant is no longer evident.

Requirements for Pre-Plant Drip Irrigation Soil Fumigation in a Greenhouse

- The maximum application block size that can be treated is 50,000 square feet.
- All applications must be tarped.
- During the application keep all doors, vents, and windows to the outside open, and keep all fans or mechanical ventilation systems running within the greenhouse.
- Leaks through which gases could enter adjacent enclosed areas must be sealed.

Clarification for Use in Shade Houses

- Use in shade houses is permitted only when roof and walls are retracted to the extent possible without roof and wall removal for the duration of treatment and when the buffer zones and re-entry intervals required for equivalent soil applications are used.

TABLE 1¹
PREPLANT SOIL FUMIGATION USES

Field soils to be planted to	Application Rate ³ for untarped shank broadcast applications		Application Rate ³ for tarped shank bed, strip and broadcast; untarped shank bed; and untarped deep shank broadcast applications		Application Rate ³ for tarped drip and untarped buried drip irrigation applications	
	Gallons/ treated acre	Lbs/ treated acre	Gallons/ treated acre	Lbs/ treated acre	Gallons/ treated acre	Lbs/ treated acre
Floral crops, Nursery crops (including forest nursery seedlings)	12.6	175	25.2	350	7.2 - 21.6	100 - 300
Plant and seed beds	12.6	175	21.6 - 25.2	300 - 350	7.2 - 21.6	100 - 300
Eggplant, cucumbers, melons, tomatoes	12.6	175	21.6 - 25.2	300 - 350	7.2 - 21.6	100 - 300
Sweet potatoes, yams	12.6	175	10.8 - 25.2	150 - 350	7.2 - 21.6	100 - 300
Onions	12.6	175	14.4 - 25.2	200 - 350	7.2 - 21.6	100 - 300
Strawberries	12.6	175	10.8 - 25.2	150 - 350	7.2 - 21.6	100 - 300
All other crops ²	12.6	175	10.8 - 25.2	150 - 350	7.2 - 21.6	100 - 300

¹ Do not exceed specified maximum application rates in Table 1.

² Not to be used with aquatic plants or for forestry uses.

³To facilitate application of this product when applying in low dosages, dilution with the solvent Exxsol® D-80 is allowed. The maximum rate of Exxsol® D-80 shall not exceed 150 lbs./acre (22.6 gallons/acre).

Calculating the Broadcast Equivalent Application Rate

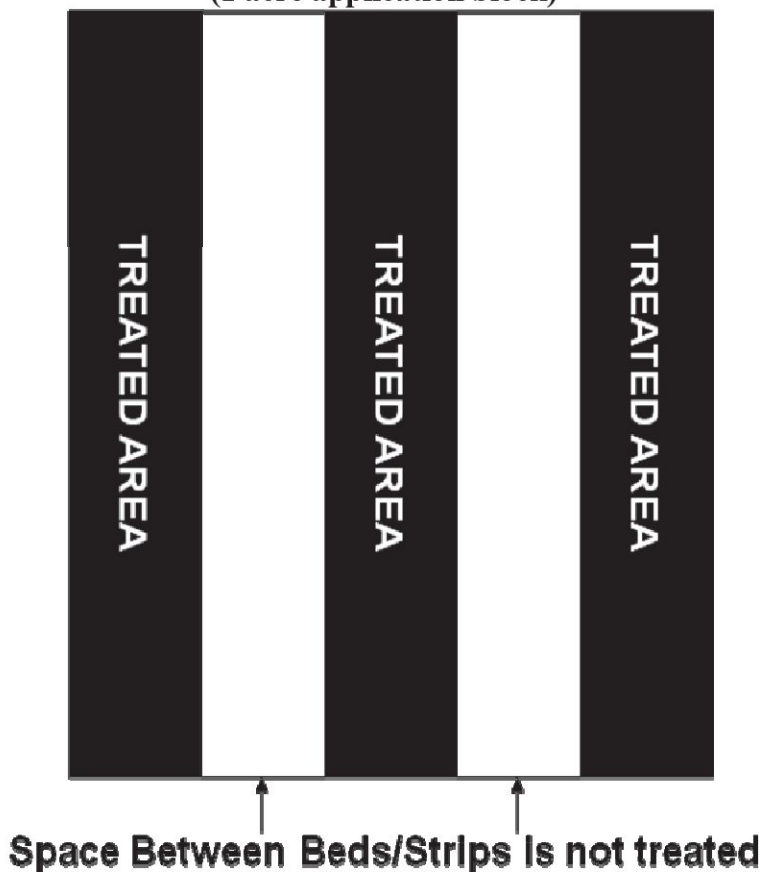
To calculate the broadcast equivalent rate for bedded or strip applications the following information is needed:

- pounds (or gallons) of product per treated acre
- strip or bed bottom width (inches)
- center-to-center row spacing (inches)
- application block size (acres)

Pounds (or gallons) of product **per treated acre** is the ratio of total amount of product applied to the size of the **total area treated** (e.g., the rate of product applied in the bed). For bedded or strip applications, the **total area treated** is the summation of the area (i.e., length x width) of each treated bed bottom or strip that is located within the application block as shown by the black areas in Figure 1 (e.g., black areas are 0.6A or 60% of the area within the application block). The area of the space between the beds/strips is not factored in the total area treated.

The **application block size** is the acreage within the perimeter of the fumigated portion of a field (including furrows, irrigation ditches, roadways). The perimeter of the application block is the border that connects the outermost edges of total area treated with the fumigant product.

Figure 1. Bedded/Strip Application
(1 acre application block)

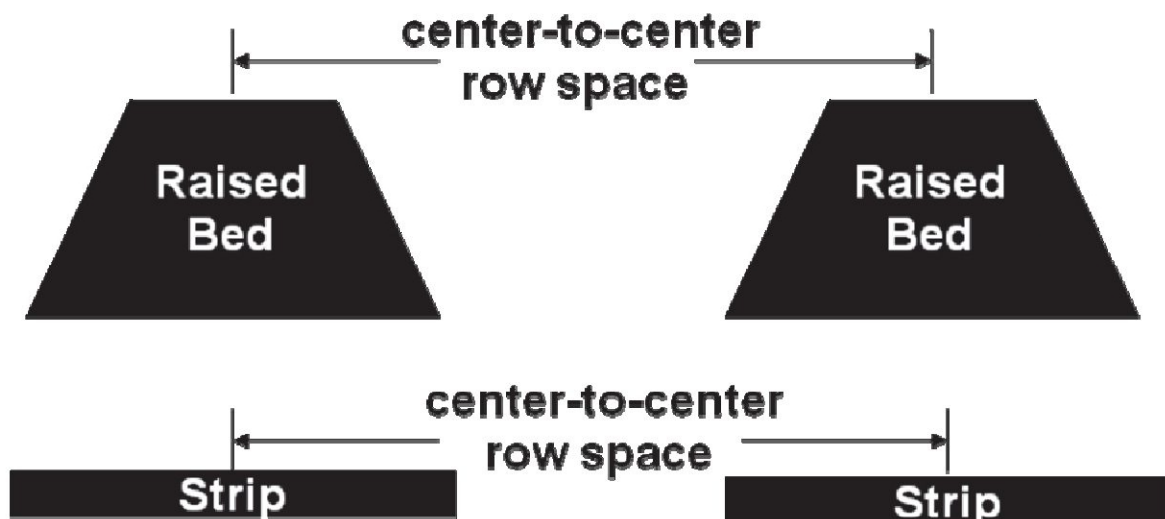


The “broadcast equivalent rate” must be calculated with the following formula:

$$\text{Broadcast equivalent rate} \begin{array}{l} \text{(pounds (or gallons)} \\ \text{product/acre)} \end{array} = \frac{\begin{array}{c} \text{strip or bed bottom} \\ \text{width} \\ \text{(inches)} \end{array}}{\begin{array}{c} \text{center-to-center row} \\ \text{spacing} \\ \text{(inches)} \end{array}} \times \begin{array}{c} \text{pounds (or} \\ \text{gallons) of} \\ \text{product/} \\ \text{treated acre} \\ \text{applied in the} \\ \text{strip or bed} \end{array}$$

- The bed width must be measured from the bottom of the bed.
- The center-to-center row spacing must be calculated as shown in Figure 2.
- If there are any ditches, waterways, drive rows and other areas that are not fumigated that are in the application block, multiply the above broadcast equivalent equation by **(total area of strips or beds + row spacing)/ (application block size)**. A sample calculation is provided below.

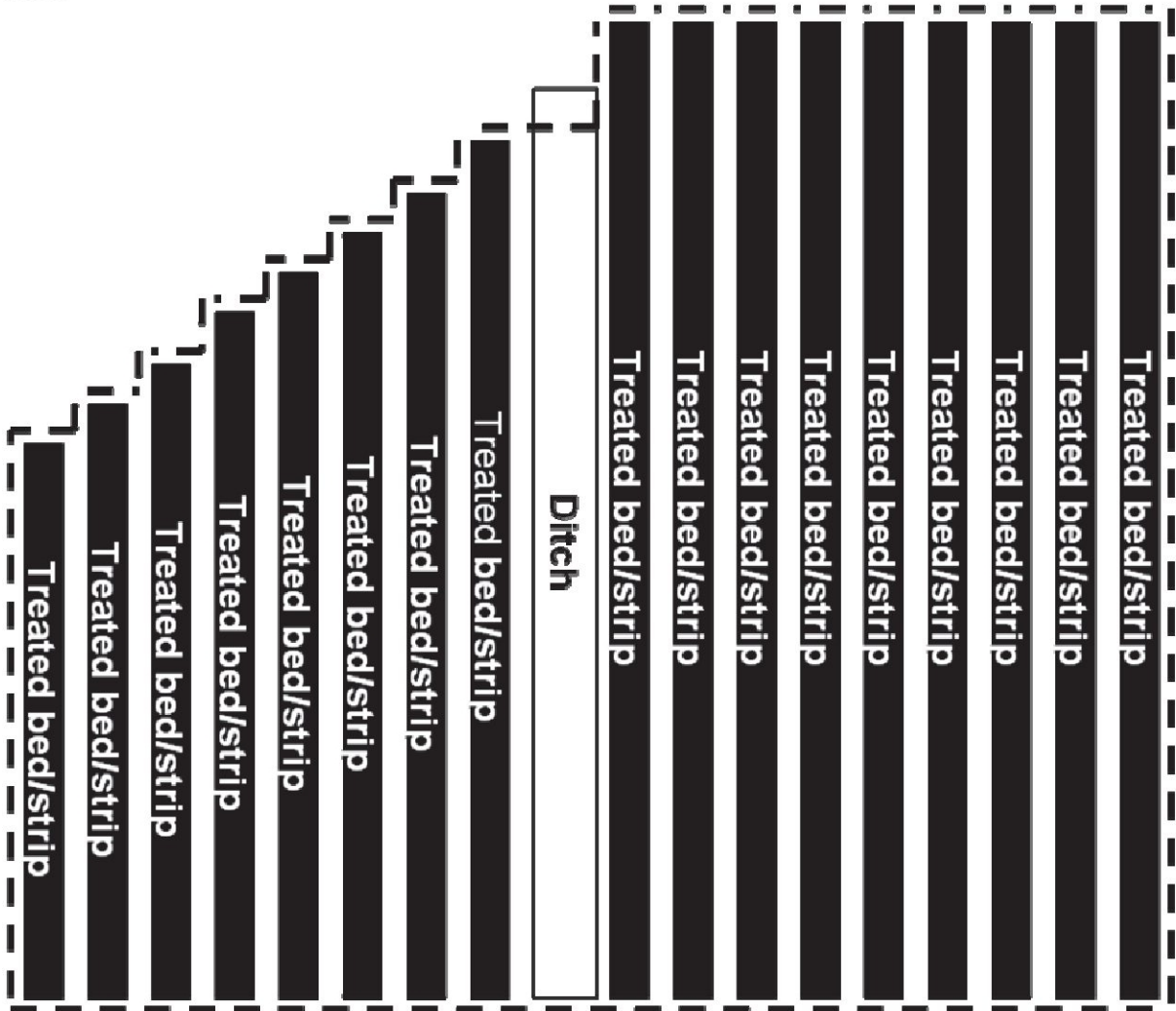
Figure 2. Center Row Spacing



Sample broadcast equivalent rate calculation

Assumptions:

- Application method is shank bedded
- Bed width is 30 inches (measured at the bottom of bed)
- Center-to-center row spacing is 60 inches
- 200 pounds of product per treated acre is applied in the beds
- Total application block size is 10 acres
- Ditch in the middle of application block is 0.25 acres
- Area of beds + row spacing is 9.75 acres



$$\begin{array}{rclcl}
 \text{broadcast} & & & \text{area of} & \\
 \text{equivalent rate} & = & \text{strip or bed bottom width} & \text{strips or beds} & \\
 \text{(pounds} & & \text{(inches)} & \text{+ row} & \\
 \text{product/acre)} & & & \text{spacing} & \\
 & & & & \text{pounds} \\
 & & & & \text{product/} \\
 & & & & \text{treated acre} \\
 & & & & \text{applied in the} \\
 & & & & \text{bed} \\
 \\
 & & \text{center-to-center row} & \text{application} & \\
 & & \text{spacing} & \text{block size} & \\
 & & \text{(inches)} & & \\
 \\
 & = & \frac{30 \text{ inch width beds}}{60 \text{ inch row spacing}} & \times \frac{9.75 \text{ acres}}{10 \text{ acres}} & \times 200 \text{ pounds} \\
 & & & & \text{product/} \\
 & & & & \text{treated acre} \\
 \\
 & = & 97.5 \text{ pounds product/acre} & &
 \end{array}$$

For certain types of application methods, such as nontarped, buried drip applications for melons, the beds are significantly wider (approximately 80 to 84 inches) than the treated root zone area. In this case the calculations above would be modified so the strip or bed width (inches) is replaced with the treated bed area (inches).

Buffer Zone Requirements

A buffer zone must be established for every fumigant application. The following describes the buffer zone requirements:

- The buffer zone must extend outward from the edge of the application block perimeter equally in all directions.
- All non-handlers, including field workers, residents, pedestrians, and other bystanders, must be excluded from the buffer zone during the buffer zone period except for transit (see *Buffer Zone Exemption for Transit on Roadways*).
 - Local, state, or federal officials performing inspection, sampling, or other similar official duties are not excluded from the application block or the buffer zone by this labeling. The certified applicator supervising the application and the owner of the establishment where the application is taking place are not authorized to, or responsible for, excluding those officials from the application block or the buffer zone.
- The buffer zone period begins at the start of the application and lasts for a minimum of 48 hours after the application is complete.

Buffer zone proximity

- Before the start of application, the certified applicator must determine whether their buffer zone will overlap any chloropicrin buffer zone(s).
- To reduce the potential for off-site movement from multiple fumigated fields, buffer zones from multiple chloropicrin application blocks must not overlap UNLESS:
 1. A minimum of 12 hours have elapsed from the time the earlier application(s) is complete until the start of the later application, and
 2. *Fumigant Site Monitoring* or *Response Information for Neighbors* have been implemented if there are any residences or businesses within 300 feet of any of the buffer zones.

Structures under the control of the owner of the application block

- Buffer zones must not include buildings used for storage, (e.g., sheds, barns, garages) UNLESS:
 1. The storage buildings are not occupied during the buffer zone period, and
 2. The storage buildings do not share a common wall with an occupied structure.

Areas not under the control of the owner of the application block

- Buffer zones must not include residential areas (e.g., employee housing, private property), buildings (e.g., commercial, industrial), outdoor residential areas (e.g., lawns, gardens, play areas) and other areas that people may occupy, UNLESS:
 1. The occupants provide written agreement, prior to the start of the application, that they will voluntarily vacate the buffer zone during the entire buffer zone period, and
 2. Reentry by occupants and other non-handlers must not occur until,
 - 1) The buffer zone period has ended, and
 - 2) Sensory irritation is not experienced upon re-entry.
- Buffer zones must not include agricultural areas owned and/or operated by persons other than the owner of the application block, UNLESS:
 1. The owner of the application block can ensure that the buffer zone will not overlap with a chloropicrin buffer zone from any other property owners, except as provided in the *Buffer Zone Proximity* section, and
 2. The owner of the other property provides written agreement to the applicator that they, their employees, and other persons will stay out of the buffer zone during the entire buffer zone period.
- Buffer zones must not include roadways and rights of way UNLESS:
 1. The area is not occupied during the buffer zone period, and
 2. Entry by non-handlers is prohibited during the buffer zone period.

Buffer Zone Exemption for Transit on Roadways
Vehicular and bicycle traffic on public and private roadways through the buffer zone is permitted. (NOTE: Buffer zones are not permitted to include bus stops or other locations where persons wait for public transit.)
- For all other publicly owned and/or operated areas such as parks, sidewalks, permanent walking paths, playgrounds, and athletic fields, buffer zones must not include these areas UNLESS:
 1. The area is not occupied during the buffer zone period,
 2. Entry by non-handlers is prohibited during the buffer zone period, and
 3. Written permission to include the public area in the buffer zone is granted by the appropriate state and/or local authorities responsible for management and operation of the area.

Certified applicators must comply with all local laws and regulations.

See the *Posting* section for additional requirements that may apply.

Buffer Zone Distances

Buffer zone distances must be calculated using the application rate and the size of the application block.

- Buffer zone distances must be based on look-up tables in this labeling (25 feet is the minimum distance regardless of site-specific application parameters).
- If after applying all applicable buffer zone credits the buffer zone is greater than ½ mile (2,640 ft), then the application is prohibited.
- For all other applications Tables 2 to 11 must be used to determine the minimum buffer distances as appropriate for the method of application. Round up to the nearest rate and block size, where applicable. Applications are prohibited for rates or block sizes that exceed what is presented in the buffer zone tables.

Table 2. Strip Tarp Buffer Zone Distances in Feet

		Application Block Size (Acres)																											
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120	130	140	150	160
Broadcast Equivalent Application Rate (lbs Product/Acre)	45	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	30	35	35
	50	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	38	41	44
	55	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	30	30	35	40	45	49	53	56	60
	60	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	36	50	55	60	65	70	76	81	87
	65	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	34	43	60	75	85	100	108	117	125	133
	70	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	38	50	75	100	115	130	141	152	163	173
	75	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	32	36	46	56	70	83	110	125	135	150	163	175	188
	80	25	25	25	25	25	25	25	25	25	25	25	25	30	31	39	48	68	88	102	116	130	145	160	175	190	204	219	233
	85	25	25	25	25	25	25	25	25	25	25	25	25	30	34	46	59	89	119	134	149	164	179	194	209	226	244	261	279
	90	25	25	25	25	25	25	25	25	25	25	30	33	41	50	65	79	114	149	166	184	196	214	232	249	269	290	311	331
	95	25	25	25	25	25	25	25	25	25	25	37	49	64	80	94	108	142	176	198	221	236	258	279	298	323	348	373	397
	100	25	25	25	25	25	25	25	25	25	25	45	64	87	110	123	136	170	203	230	258	277	302	326	348	377	406	435	463
	105	25	25	25	25	25	25	25	25	25	25	53	80	110	140	153	165	198	230	263	295	325	355	382	407	441	475	509	543
	110	25	25	25	25	25	30	30	31	32	66	100	129	157	170	184	218	253	280	306	356	389	419	446	483	520	558	595	
	115	25	25	25	25	25	30	31	34	36	39	80	120	147	174	188	202	239	276	297	318	388	424	456	485	525	566	606	647
	120	25	25	25	25	25	30	34	38	42	46	93	140	166	191	206	221	260	299	314	329	419	458	493	524	568	611	655	699
	125	25	25	25	25	25	31	38	44	51	57	106	154	182	209	224	239	281	322	340	358	451	492	529	563	610	657	704	751
	130	25	25	25	25	25	34	44	53	62	71	117	163	195	228	243	258	302	346	375	404	482	526	566	602	652	702	753	803
	135	25	25	25	25	25	37	49	61	74	86	129	171	209	246	261	276	324	371	410	449	514	561	603	641	694	748	801	855
	140	25	25	25	25	25	40	55	70	85	100	140	180	223	265	280	295	345	395	445	495	545	595	640	680	737	793	850	907
	145	25	30	31	34	36	52	68	83	99	114	154	194	238	282	301	319	371	424	474	525	577	629	677	721	781	841	901	961
	150	25	31	36	42	48	64	80	96	112	129	169	209	254	299	321	344	398	452	504	555	609	664	714	761	825	888	952	1015
	155	25	34	42	51	59	76	93	109	126	143	183	223	270	316	342	368	424	481	533	585	641	698	751	802	869	936	1003	1070
	160	25	36	46	57	68	85	102	118	135	152	194	235	283	330	360	389	448	506	561	615	674	732	789	843	913	983	1054	1124
	165	25	37	49	61	74	90	107	123	140	156	201	245	293	340	374	408	469	529	587	645	706	766	826	884	957	1031	1104	1178
	170	25	39	52	66	79	96	112	128	144	161	208	255	303	350	388	426	489	552	614	675	738	801	863	924	1001	1078	1155	1232
	175	25	40	55	70	85	101	117	133	149	165	215	265	313	360	403	445	510	575	640	705	770	835	900	965	1045	1126	1206	1287
	180	25	41	57	72	87	104	120	137	153	170	221	273	322	370	415	457	525	591	658	725	792	859	926	993	1075	1158	1241	1323
	185	25	42	58	74	90	107	124	141	158	174	227	280	331	381	426	470	539	608	677	745	814	883	951	1020	1105	1190	1275	1360
	190	25	43	60	76	92	110	127	144	162	179	233	288	340	391	438	483	554	624	695	765	836	907	977	1048	1135	1222	1310	1397
	195	25	45	61	78	95	113	131	148	166	184	240	295	349	401	449	496	568	641	713	785	858	930	1003	1075	1165	1255	1344	1434
	200	25	46	63	80	97	115	134	152	170	189	246	303	358	411	461	509	583	657	731	805	880	954	1029	1103	1195	1287	1379	1470
	205	25	47	64	82	100	118	137	156	175	193	252	310	367	422	472	521	597	674	750	825	902	978	1054	1130	1225	1319	1413	1507
	210	30	48	66	84	102	121	140	160	179	198	258	318	376	432	484	534	612	690	768	846	924	1002	1080	1158	1255	1351	1448	1544
	215	30	49	68	86	104	124	144	163	183	203	264	326	385	442	495	547	627	706	786	866	946	1026	1106	1186	1284	1383	1482	1581
	220	31	50	69	88	107	127	147	167	187	207	270	333	393	453	507	559	641	723	805	886	968	1050	1131	1213	1314	1415	1516	1618
	225	32	51	71	90	109	130	150	171	192	212	276	341	402	463	518	572	656	739	823	906	990	1074	1157	1241	1344	1448	1551	1654
	230	33	53	72	92	112	133	154	175	196	217	283	348	411	473	530	585	670	756	841	927	1012	1097	1183	1268	1374	1480	1585	1691
	235	34	54	74	94	115	136	157	179	200	222	289	356	420	483	541	598	685	772	859	947	1034	1121	1209	1296	1404	1512	1620	1728
	240	34	55	75	96	117	139	160	182	204	226	295	363	429	494	553	610	699	789	878	967	1056	1145	1234	1323	1434	1544	1654	1765
	245	35	56	77	98	119	141	164	186	209	231	301	371	438	504	564	623	714	805	896	987	1078	1169	1260	1351	1464	1576	1689	1801
	250	36	57	79	100	121	144	167	190	213	236	307	379	447	514	576	636	729	821	914	1007	1100	1193	1286	1379	1493	1608	1723	1838
	255	36	58	80	102	124	147	171	194	217	240	313	386	456	525	587	648	743	838	933	1027	1122	1217	1311	1406	1523	1641	1758	1875
	260	37	59	82	104	126	150	174	198	221	245	319	394	465	535	599	661	758	854	951	1047	1144	1241	1337	1434	1553	1673	1792	1912
	265	38	61	83	106	129	153	177	201	225	250	326	401	474	545	610	674	772	870	969	1067	1166	1264	1363	1461	1583	1705	1827	1948

	Application Block Size (Acres)																												
	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120	130	140	150	160	
75	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
80	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
85	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
90	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
95	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
100	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
105	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
110	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
115	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
120	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
125	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
130	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
135	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
140	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
145	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
150	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
155	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
160	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45
1																													

Table 4. Bed Untarp (both preformed beds and beds listed/disk hilled at the time of application) Buffer Zone Distances in Feet

Table 4: Best Champ (best performance) and best listed disk sizes at the time of application. Buffer Zone Distances in Feet																																
	Application Block Size (Acres)																															
	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120	130	140	150	160				
35	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	40	50	60	75			
40	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	100			
45	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	197			
50	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	293			
55	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	43	55	88	108	148	188	198	208	229	250	271	292	313	333		
60	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	60	85	150	160	190	220	235	250	265	280	303	327	350	373			
65	25	25	25	25	25	25	25	25	25	25	25	25	25	25	53	63	100	120	183	193	223	253	283	318	349	380	412	443	475	507		
70	25	25	25	25	25	25	25	25	25	25	25	25	25	25	80	100	140	155	215	225	255	285	335	385	435	480	520	560	600	640		
75	25	25	25	25	25	25	25	25	25	25	25	45	95	125	150	200	215	240	275	325	375	425	475	520	565	612	659	706	753			
80	25	25	25	25	25	25	25	25	25	25	25	68	128	158	183	225	240	278	330	378	425	475	525	566	608	658	709	759	810			
85	25	25	25	25	25	25	25	25	25	25	25	90	150	185	215	250	265	315	385	430	475	525	575	613	650	704	758	813	867			
90	25	25	25	25	25	25	32	39	46	53	115	168	203	233	268	289	330	433	481	530	576	623	668	713	772	831	891	950				
95	25	25	25	25	25	25	39	53	66	80	140	185	220	250	285	320	385	480	533	585	628	670	723	775	840	904	968	1033				
100	25	25	25	25	25	25	43	61	79	98	153	200	238	280	318	350	418	510	570	630	679	728	776	825	894	963	1031	1100				
105	25	25	25	25	25	25	48	70	93	115	165	215	255	310	350	380	450	540	608	675	730	785	830	875	948	1021	1094	1167				
110	25	25	25	25	25	25	51	78	104	130	200	250	310	350	400	435	490	575	650	725	778	830	896	965	1045	1126	1206	1287				
115	25	30	32	36	39	43	68	94	119	145	213	268	330	365	418	455	533	608	679	750	799	848	928	1008	1091	1175	1259	1343				
120	25	32	39	46	53	60	85	110	135	160	225	285	350	380	435	475	575	640	708	775	820	865	958	1050	1138	1225	1313	1400				
125	30	40	46	59	68	78	101	125	149	173	243	308	368	415	460	513	613	660	743	825	873	920	1000	1080	1170	1260	1350	1440				
130	30	43	56	69	82	95	118	140	163	185	260	320	385	450	485	550	650	680	778	875	925	975	1045	1130	1208	1295	1388	1480				
135	30	45	59	74	88	103	126	150	174	198	273	335	405	468	510	565	668	730	815	900	969	1038	1090	1143	1238	1333	1428	1523				
140	35	50	65	80	95	110	135	160	185	210	285	350	425	485	535	580	685	780	853	925	1013	1100	1138	1175	1273	1371	1469	1567				
145	40	56	72	88	104	120	146	173	199	225	315	385	440	540	575	625	775	870	915	960	1068	1115	1250	1325	1435	1546	1656	1767				
150	45	63	80	98	115	133	159	185	211	238	328	393	463	553	600	650	805	893	974	1055	1149	1243	1340	1438	1557	1677	1797	1917				
155	50	69	88	107	126	145	171	198	224	250	340	400	485	565	625	675	835	915	1033	1150	1250	1310	1430	1550	1679	1808	1938	2067				
160	55	75	94	114	133	153	181	210	239	268	358	418	508	578	645	720	855	948	1056	1165	1255	1345	1479	1613	1747	1881	2016	2150				
165	60	80	100	120	140	160	191	223	254	285	375	435	530	590	665	765	875	980	1080	1180	1280	1380	1528	1675	1815	1954	2094	2233				
170	65	88	111	134	157	180	211	243	274	305	418	480	555	633	708	778	925	1075	1164	1253	1363	1473	1586	1700	1842	1983	2125	2267				
175	75	100	125	150	175	200	231	263	294	325	460	485	580	675	750	790	975	1170	1248	1325	1445	1565	1645	1725	1869	2013	2156	2300				
180	77	103	129	154	180	206	238	270	302	334	473	499	597	694	771	813	1003	1203	1283	1363	1486	1610	1692	1774	1922	2070	2218	2366				
185	79	106	132	159	185	211	244	278	311	344	486	513	613	714	799	835	1031	1237	1319	1401	1528	1654	1739	1824	1976	2128	2279	2431				
190	81	109	136	163	190	217	251	285	319	353	499	527	630	733	814	858	1059	1270	1354	1439	1569	1699	1786	1873	2029	2185	2341	2497				
195	84	111	139	167	195	223	258	293	327	362	513	540	646	752	836	880	1086	1304	1390	1476	1610	1744	1833	1922	2082	2243	2403	2563				
200	86	114	143	171	200	229	264	300	336	371	526	554	663	771	857	903	1114	1337	1426	1514	1651	1789	1880	1971	2136	2300	2464	2629				
205	88	117	146	176	205	234	271	308	344	381	539	568	679	791	879	925	1142	1371	1461	1552	1693	1833	1927	2021	2189	2358	2526	2694				
210	90	120	150	180	210	240	278	315	353	390	552	582	696	810	900	948	1170	1404	1497	1590	1734	1878	1974	2070	2243	2415	2588	2760				
215	92	123	154	184	215	246	284	323	361	399	565	596	713	829	921	971	1198	1437	1533	1628	1775	1923	2021	2119	2296	2473	2649	2826				
220	94	126	157	189	220	251	291	330	369	409	578	610	729	849	943	993	1226	1471	1568	1666	1817	1967	2068	2169	2349	2530	2711	2891				
225	96	129	161	193	225	257	297	338	378	418	591	624	746	868	964	1016	1254	1504	1604	1704	1858	2012	2115	2218	2403	2588	2772	2957				
230	99	131	164	197	230	263	304	345	386	427	605	637	762	887	986	1038	1281	1538	1640	1741	1899	2057	2162	2267	2456	2645	2834	3023				
235	101	134	168	201	235	269	311	353	394	436	618	651	779	906	1007	1061	1309	1571	1675	1779	1940	2102	2209	2316	2509	2703	2896	3089				
240	103	137	171	206	240	274	317	360	403	446	631	665	795	926	1029	1083	1337	1605	1711	1817	1982	2146	2256	2366	2563	2760	2957	3154				
245	105	140	175	210	245	280	324	368	411	455	644	679	812	945	1050	1106	1365	1638	1747	1855	2023	2191	2303	2415	2616	2818	3019	3220				
250	107	143	179	214	250	286	330	375	420	464	657	693	829	964	1071	1129	1393	1671	1782	1893	2064	2236	2350	2464	2670	2875	3080	3286				
255	109	146	182	219	255	291	337	383	428	474	670	707	845	984	1093	1151	1421	1705	1818	1931	2106	2280	2397	2514	2723	2933	3142	3351				
260	111	149	186	223	260	297	344	390	436	483	683	721	862	1003	1114	1174	1449	1738	1853	1969	2147	2325	2444	2563	2776	2990	3204	3417				
265	114	151	189	227	265	303	350	398	445	492	697	734	878	1022	1136	1196	1476	1772	1889	2006	2188	2370	2491	2612	2830	3048	3265	3483				

Buffer zone distances cannot be greater than ½ mile (2,640 feet). If after applying applicable credits the buffer zone distances are still greater than ½ mile (2,640 feet), the application is prohibited.

Buffer for Compacted Untarp Beds (beds listed/disk hilled and compacted at the time of application in one pass) is 25 feet.

Table 5. Broadcast Tarp Buffer Zone Distances in Feet

	Application Block Size (Acres)																											
	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120	130	140	150	160
70	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	30	35	40	45	50	55
80	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	32	37	40	43	45	45	50	55	60	64	69	73
90	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	30	39	49	55	61	65	65	70	70	76	82	88	93
95	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	31	46	61	70	79	83	88	95	95	103	111	119	127
100	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	33	53	73	85	97	110	115	120	125	135	146	156	167
105	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	60	85	100	115	130	145	160	170	184	198	213	227
110	25	25	25	25	25	25	25	25	25	25	30	34	36	38	45	51	78	104	120	136	150	165	180	190	206	222	238	253
115	25	25	25	25	25	25	25	25	25	25	34	42	46	51	59	68	95	122	140	158	170	185	200	210	228	245	263	280
120	25	25	25	25	25	25	25	25	25	25	38	51	57	64	74	84	113	141	160	179	195	215	230	240	260	280	300	320
125	25	25	25	25	25	25	25	25	25	25	42	59	68	76	89	101	130	159	180	201	221	241	260	275	298	321	344	367
130	25	25	25	25	25	25	25	25	25	25	46	68	79	89	103	117	148	178	200	222	242	262	282	297	322	347	371	396
135	25	25	25	25	25	25	25	25	25	25	51	76	89	102	118	134	165	196	220	244	268	290	310	330	358	385	413	440
140	25	25	25	25	25	25	25	25	25	25	55	85	100	115	133	150	183	215	240	265	290	315	335	355	385	414	444	473
145	25	25	25	25	25	30	30	30	32	34	64	94	112	129	147	164	198	231	259	286	311	335	360	380	412	443	475	507
150	25	25	25	25	25	30	32	35	39	42	73	104	124	144	161	179	213	248	277	306	335	364	390	415	450	484	519	553
155	25	25	25	25	25	30	35	40	46	51	82	113	135	158	175	193	229	264	296	327	357	385	415	440	477	513	550	587
160	25	25	25	25	25	32	39	46	52	59	91	122	147	172	190	207	244	281	314	348	382	415	450	480	520	560	600	640
165	25	25	25	25	25	34	42	51	59	68	100	131	159	186	204	221	259	297	333	369	404	439	474	504	546	588	630	672
170	25	25	25	25	25	35	46	56	66	76	109	141	171	201	218	236	275	314	351	389	427	465	503	536	581	625	670	715
175	25	25	25	25	25	37	49	61	73	85	118	150	183	215	233	250	290	330	370	410	450	490	530	565	612	659	706	753
180	25	30	30	30	32	45	58	70	83	96	129	161	194	226	249	271	312	353	394	434	474	514	554	589	638	687	736	785
185	25	30	32	36	39	53	66	80	93	106	140	173	205	238	265	291	334	376	417	459	499	539	579	614	665	716	768	819
190	25	30	36	41	46	61	75	89	103	117	151	184	217	249	281	312	355	399	441	483	523	563	603	638	691	744	798	851
195	25	32	39	46	54	68	83	98	113	128	162	196	228	261	297	333	377	421	464	507	547	587	627	662	717	773	828	883
200	25	34	43	52	61	76	92	107	123	139	173	207	240	272	313	354	399	444	488	531	571	611	651	686	744	801	858	915
205	25	36	46	57	68	84	100	117	133	149	184	219	251	284	329	374	421	467	511	556	596	636	676	711	770	829	888	948
210	25	38	50	63	75	92	109	126	143	160	195	230	263	295	345	395	443	490	535	580	620	660	700	735	796	858	919	980
215	25	39	54	68	82	99	116	132	149	166	203	239	274	309	359	409	456	504	549	594	634	674	714	749	812	874	937	999
220	25	41	57	73	89	106	122	139	155	171	210	249	286	324	373	422	470	519	564	609	649	689	729	764	827	891	954	1018
225	25	43	61	79	96	113	129	145	161	177	218	258	298	338	387	436	484	533	578	623	663	703	743	778	843	908	972	1037
230	25	45	64	84	104	119	135	151	167	183	225	267	310	352	401	449	498	547	592	637	677	717	757	792	858	924	990	1056
235	25	46	68	89	111	126	142	157	173	189	233	276	321	366	415	463	512	561	606	651	691	731	771	806	874	941	1008	1075
240	25	48	71	95	118	133	148	164	179	194	240	286	333	381	429	476	526	576	621	666	706	746	786	821	889	958	1026	1094
245	25	50	75	100	125	140	155	170	185	200	248	295	345	395	443	490	540	590	635	680	720	760	800	835	905	974	1044	1113
250	25	51	77	103	129	144	159	174	189	204	254	303	355	407	453	499	551	604	656	708	748	788	828	863	935	1007	1079	1150
255	25	52	79	105	132	147	163	178	193	209	260	311	365	419	463	507	563	619	677	736	776	816	856	891	965	1039	1113	1188
260	25	53	80	108	136	151	167	182	197	213	266	319	375	431	474	516	574	633	698	764	804	844	884	919	995	1072	1148	1225
265	25	54	82	111	139	155	170	186	202	217	272	326	385	444	484	524	586	647	719	791	831	871	911	946	1025	1104	1183	1262
270	25	54	84	113	143	159	174	190	206	221	278	334	395	456	494	533	597	661	740	819	859	899	939	974	1055	1137	1218	1299
275	25	55	86	116	146	162	178	194	210	226	284	342	405	468	505	541	609	676	761	847	887	927	967	1002	1086	1169	1253	1336
280	25	56	88	119	150	166	182	198	214	230	290	350	415	480	515	550	620	690	783	875	915	955	995	1030	1116	1202	1288	1373
285	25	57	89	122	154	171	188	205	222	239	300	361	423	484	526	569	642	715	798	881	921	961	1001	1036	1123	1209	1295	1382
290	25	58	91	124	158	176	194	212	230	248	310	373	430	488	538	588	664	740	814	888	928	968	1008	1043	1129	1216	1303	1390
295	25	59	93	127	161	180	199	218	237	256	320	384	438	491	549	606	686	765	829	894	934	974	1014	1049	1136	1224	1311	1398
300	25	60	95	130	165	185	205	225	245	265	330	395	445	495	560	625	708	790	845	900	940	980	1020	1055	1143	1231	1319	1407
305	30	64	100	136	172	192	212	233	253	273	341	408	460	512	573	633	718</											

Table 6. Broadcast Untarp Buffer Zone Distances in Feet

Broadcast Application Rate (lbs Product/Acre)	Application Block Size (Acres)																											
	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120	130	140	150	160
30	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
35	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
40	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
45	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
50	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
55	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
60	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
65	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
70	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
75	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
80	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
85	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
90	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
95	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
100	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
105	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
110	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
115	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
120	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
125	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
130	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
135	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
140	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
145	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
150	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
155	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
160	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
165	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
170	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
175	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25

Buffer zone distances cannot be greater than ½ mile (2,640 feet). If after applying applicable credits the buffer zone distances are still greater than ½ mile (2,640 feet), the application is prohibited.

Table 7. Deep Ripped Untarp Shallow Shank Buffer Table (in feet)

	Application Block Size (Acres)																											
	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120	130	140	150	160
Broadcast Application Rate (lbs product/acre)	36	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	41	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40
	47	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	40	50	50	60
	53	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	40	50	70	80
	59	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	65	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	71	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	77	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	82	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	88	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	94	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	100	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	106	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	112	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	117	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	120	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	123	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	129	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	135	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	141	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	147	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	153	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	158	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	164	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	170	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80
	175	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	50	70	80

Table 8. Broadcast Deep (18 inches) Untarp Buffer Zone Distances in Feet

	Application Block Size (Acres)															
	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40
30	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
35	25	25	25	25	25	25	25	25	25	25	30	30	33	35	38	41
40	25	25	25	25	25	25	25	25	25	25	30	35	40	46	51	57
45	25	25	25	25	25	25	25	25	25	25	33	40	48	56	64	73
50	25	25	25	25	25	25	25	25	25	25	35	45	56	67	78	88
55	25	25	25	25	25	25	25	25	25	25	40	55	71	88	104	120
60	25	25	25	25	25	25	25	25	25	25	45	65	87	108	130	152
65	25	25	25	25	25	25	25	25	25	25	50	75	102	129	156	183
70	25	25	25	25	25	25	25	25	25	25	55	85	118	150	183	215
75	25	25	25	25	25	30	32	35	38	40	77	114	148	183	216	249
80	25	25	25	25	25	33	39	45	51	55	99	143	179	215	249	283
85	25	25	25	25	25	37	46	55	63	70	121	171	209	248	282	316
90	25	25	25	25	25	42	53	65	76	85	143	200	240	280	315	350
95	25	25	25	30	30	46	60	74	89	101	161	220	263	305	341	378
100	25	25	30	30	30	50	67	84	102	118	179	240	285	330	368	405
105	25	30	30	33	35	58	81	104	127	150	215	280	330	380	430	480
110	25	32	38	45	51	74	97	120	143	166	234	301	355	408	450	493
115	25	36	46	57	68	91	114	137	160	183	253	323	378	436	481	526
120	25	40	55	69	84	107	130	153	176	199	272	344	404	464	511	559
125	25	44	63	82	101	124	147	170	193	216	291	366	429	491	541	591
130	25	48	71	94	117	140	163	186	209	232	310	387	453	519	572	624
135	25	52	79	106	134	157	180	203	226	249	329	409	478	547	602	657
140	25	56	88	119	150	173	196	219	242	265	348	430	503	575	633	690
145	25	59	92	126	159	183	207	231	255	279	365	451	527	603	664	725
150	25	61	97	133	169	193	218	243	267	292	382	471	551	631	695	760
155	25	63	101	140	178	203	229	255	280	306	399	492	575	659	727	795
160	25	66	106	147	187	214	240	266	293	319	416	513	600	686	758	830
165	25	68	111	154	196	224	251	278	306	333	433	534	624	714	790	865
170	25	70	115	161	206	234	262	290	318	346	450	554	648	742	821	900
175	25	73	120	168	215	244	273	302	331	360	468	575	673	770	853	935
180	25	75	126	176	226	257	287	317	347	377	491	605	704	803	886	969
185	25	78	131	185	238	269	300	332	363	394	515	635	735	836	920	1004
190	25	81	137	193	249	282	314	347	379	411	538	665	767	869	953	1038
195	25	84	143	202	261	294	328	361	395	429	562	695	798	901	987	1072
200	25	87	149	210	272	307	342	376	411	446	585	725	830	934	1020	1106
205	25	90	154	219	284	319	355	391	427	463	609	755	861	967	1054	1141
210	25	93	160	228	295	332	369	406	443	480	633	785	893	1000	1088	1175
215	32	101	238	307	345	383	420	458	496	535	705	861	973	1081	1171	1261
220	39	109	249	319	358	396	435	473	511	550	725	885	999	1107	1207	1307
225	46	118	260	331	371	410	449	488	527	566	745	915	1034	1143	1243	1343
230	54	126	271	344	383	423	463	503	543	583	765	935	1054	1163	1263	1363
235	61	134	282	356	396	437	477	518	559	599	785	955	1074	1183	1283	1383
240	68	143	293	368	409	450	492	533	574	615	805	975	1094	1203	1303	1403
245	75	151	304	380	422	464	506	548	590	632	825	995	1114	1223	1323	1423
250	82	159	315	392	435	478	520	562	604	646	845	1015	1134	1243	1343	1443
255	89	166	326	404	448	492	535	578	621	664	865	1035	1154	1263	1363	1463
260	96	174	337	416	461	505	549	593	637	681	885	1055	1174	1283	1383	1483
265	104	181	348	428	474	519	564	609	654	699	905	1075	1194	1303	1403	1503
270	111	189	359	441	487	533	579	625	671	717	925	1095	1214	1323	1423	1523
275	118	196	370	454	501	548	595	642	689	736	945	1115	1234	1343	1443	1543
280	125	204	381	467	515	563	611	659	707	755	965	1135	1254	1363	1463	1563
285	129	208	387	474	523	572	621	670	719	768	980	1150	1269	1378	1478	1578
290	132	212	392	479	529	579	629	679	729	779	1000	1170	1289	1398	1498	1598
295	136	216	397	484	535	586	637	688	739	790	1015	1185	1304	1413	1513	1613
300	139	220	401	489	541	593	645	697	749	801	1030	1200	1319	1428	1528	1628
305	143	224	406	494	547	599	652	705	757	810	1045	1215	1334	1443	1543	1643
310	146	228	410	500	553	606	659	713	766	820	1060	1230	1349	1458	1558	1658
315	150	233	415	506	560	614	668	723	777	832	1075	1245	1364	1473	1573	1673
320	151	235	419	510	565	620	675	730	785	840	1090	1260	1379	1488	1588	1688
325	153	238	423	515	570	626	682	737	793	849	1105	1275	1394	1503	1603	1703
330	154	241	427	519	575	632	688	744	800	856	1120	1290	1409	1518	1618	1718
335	156	243	431	523	580	637	694	750	807	864	1135	1305	1424	1533	1633	1733
340	157	246	435	527	585	642	700	757	814	871	1150	1320	1439	1548	1648	1748
345	159	249	439	531	590	647	705	763	820	878	1165	1335	1454	1563	1663	1763
350	160	251	443	535	595	652	710	768	826	884	1180	1350	1469	1578	1678	1778

Buffer zone distances cannot be greater than ½ mile (2,640 feet). If after applying applicable credits the buffer zone distances are still greater than ½ mile (2,640 feet), the application is prohibited.

Table 9. Drip Tarp Buffer Zone Distances in Feet

	Application Block Size (Acres)																							
	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120
Broadcast Equivalent Application Rate (lbs Product/Acre)	60	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	35	40
	65	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	40	50	50	55	60
	70	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	45	60	60	65	65
	75	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	45	60	60	65	70
	80	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	38	45	53	60	60	65	70	75
	85	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	40	50	60	60	60	65	70	75
	90	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	40	60	60	60	60	81	88	90
	95	30	30	30	30	30	30	30	30	30	30	30	30	30	32	34	36	38	40	60	60	64	68	97
	100	30	30	30	30	30	30	30	30	30	30	30	30	32	34	36	38	40	60	60	68	77	114	123
	105	30	30	30	30	30	30	30	30	30	30	30	30	32	34	36	38	40	60	60	73	85	130	141
	110	30	30	30	30	30	30	30	30	30	30	30	30	35	39	44	49	53	77	93	108	122	146	158
	115	30	30	30	30	30	30	30	30	30	30	30	39	48	56	65	67	68	103	120	134	148	162	176
	120	30	30	30	30	30	30	30	30	30	30	45	60	68	75	80	85	140	140	153	165	193	209	226
	125	30	30	30	30	30	30	30	30	30	30	48	65	73	82	93	103	147	160	177	193	224	243	261
	130	30	30	30	30	30	30	30	30	30	30	50	70	79	88	105	122	153	180	201	222	255	276	297
	135	30	30	30	30	30	30	30	30	30	30	53	75	85	95	118	140	160	200	225	250	287	310	333
	140	30	30	30	30	30	33	36	39	42	45	69	93	105	122	145	167	192	230	257	283	318	343	369
	145	30	30	30	30	30	36	42	48	54	60	86	112	125	148	173	193	223	260	288	317	349	377	404
	150	30	30	30	30	30	39	48	57	66	75	110	130	145	175	200	220	255	290	320	350	380	410	440
	155	30	30	30	30	30	40	50	59	68	78	114	134	150	181	207	227	264	300	331	362	393	424	455
	160	30	30	30	30	30	42	51	61	70	80	117	139	155	187	213	235	272	309	341	373	405	437	469
	165	30	30	30	30	30	43	53	63	73	83	121	143	160	193	220	242	281	319	352	385	418	451	484
	170	30	30	30	30	30	44	54	65	75	85	125	147	164	198	227	249	289	329	363	397	431	465	499
	175	30	30	30	30	35	46	56	67	77	88	128	152	169	204	233	257	298	338	373	408	443	478	513
	180	30	30	30	30	35	47	58	68	79	90	132	156	174	210	240	264	306	348	384	420	456	492	528
	185	30	30	30	30	35	48	59	70	81	93	136	160	179	216	247	271	315	358	395	432	469	506	543
	190	30	30	30	30	35	49	61	72	84	95	139	165	184	222	253	279	323	367	405	443	481	519	557
	195	30	30	30	30	35	51	62	74	86	98	143	169	189	228	260	286	332	377	416	455	494	533	572
	200	30	30	30	35	40	52	64	76	88	100	147	173	193	233	267	293	340	387	427	467	507	547	587
	205	30	30	30	35	40	53	66	78	90	103	150	178	198	239	273	301	349	396	437	478	519	560	601
	210	30	30	30	35	40	55	67	80	92	105	154	182	203	245	280	308	357	406	448	490	532	574	616
	215	30	30	30	40	40	56	69	82	95	108	158	186	208	251	287	315	366	416	459	502	545	588	631
	220	30	30	30	40	40	57	70	84	97	110	161	191	213	257	293	323	374	425	469	513	557	601	645
	225	30	30	30	40	45	59	72	85	99	113	165	195	218	263	300	330	383	435	480	525	570	615	660

Table 10. Drip Buried Untarp Buffer Zone Distances in Feet

		Application Block Size (Acres)																								
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120	
Broadcast Equivalent Application Rate (lbs Product/Acre)	20	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	44	61	77	88	
	25	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	47	66	84	102	120	138	165	193	220	242
	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	66	105	140	176	212	248	286	325	363	396
	35	30	30	30	30	30	30	30	30	30	30	30	61	94	124	154	187	220	275	330	358	385	429	473	517	556
	40	30	30	30	30	30	30	32	36	41	45	50	103	157	187	217	250	283	358	432	473	514	564	613	663	707
	45	30	30	30	30	30	30	36	45	54	63	72	146	220	250	281	314	347	440	534	589	644	699	754	809	858
	50	30	30	30	30	30	30	52	76	100	124	149	206	264	314	363	410	457	531	605	657	710	765	820	875	924
	55	30	32	37	42	47	72	97	123	148	173	238	303	359	415	459	503	589	674	734	795	850	905	960	1009	
	60	30	37	47	56	66	92	119	145	172	198	270	341	404	468	509	550	646	743	811	880	935	990	1045	1095	
	65	30	44	61	77	94	121	149	176	204	231	314	396	454	512	561	611	715	820	875	930	990	1051	1111	1166	
	70	30	50	72	94	116	145	174	203	232	261	353	446	510	575	627	679	787	894	968	1042	1119	1196	1273	1345	
	75	30	55	83	110	138	168	199	230	261	292	393	495	567	638	693	748	858	968	1062	1155	1249	1342	1436	1524	
80	33	59	88	117	147	180	212	245	278	311	419	528	604	681	739	798	915	1033	1132	1232	1332	1431	1531	1625		
85	33	62	94	125	156	191	226	261	295	330	446	561	642	723	785	848	972	1097	1203	1309	1415	1521	1627	1727		
90	33	66	99	132	165	202	239	276	313	350	472	594	680	766	832	898	1030	1162	1274	1386	1498	1610	1723	1828		
95	39	70	105	139	174	213	252	291	330	369	498	627	718	808	878	947	1087	1226	1345	1463	1581	1700	1818	1930		
100	39	73	110	147	183	224	265	307	348	389	524	660	755	851	924	997	1144	1291	1415	1540	1665	1789	1914	2031		

Table 11. Drip Tarp Greenhouse Buffer Zone Distances in Feet

Application Block Size (square feet)	Buffer Zone (feet)
≤ 25,000	25
> 25,000 and ≤ 30,000	50
> 30,000 and ≤ 35,000	75
> 35,000 and ≤ 40,000	100
> 40,000 and ≤ 45,000	115
> 45,000 and up to 50,000	130

Buffer Zone Credits

The buffer zone distances for TRI-CLOR FUMIGANT applications may be reduced by the percentages listed below. Credits may be added, but credits cannot exceed 80%. Also, the minimum buffer zone distance is 25 feet, regardless of buffer zone credits available. For all buffer zones in California, see the California requirements at <https://www.cdpr.ca.gov/chloropicrin.htm>. See <https://www.epa.gov/soil-fumigants/tarps> for a list of tarps that have been tested and determined to qualify for buffer reduction credits. Only tarps listed on this website qualify for buffer reduction credits.

- 10% reduction in buffer zone distance IF the Symmetry™ application system is used with a tarp that qualifies for a credit and the application rate is ≤ 100 pounds a.i./treated acre. The 10% credit for the Symmetry™ application system is added to the buffer zone credit for the tarp. For example, if the Symmetry™ application system is used with a tarp that qualifies for a 40% credit the total credit for the tarp and the application system would be 50%.
- 15% reduction in buffer zone distance, IF potassium thiosulfate (KTS) is applied at a minimum rate of 300 pounds per acre.
- 15% reduction in buffer zone distance, IF ¼ to ½ inch of water is applied.
- 10% reduction in buffer zone distance, IF the organic content of the soil in the application block is ≥ 1% - 2%; a 20% reduction in buffer zone distance, IF the organic content of the

soil in the application block is >2% - 3%; and a 30% reduction in the buffer zone distance, IF the organic content of the soil in the application block is >3%.

- 10% reduction in buffer zone distance, IF the soil temperature is measured to be 50°F or less. Record temperature measurements at the application depth or 12 inches, whichever is shallower.
- 10% reduction in the buffer zone distance, IF the clay content of the soil in the application block is greater than 27%.

Examples of Buffer Zone Calculations with Credits Applied

If the buffer zone is 50 feet and the application qualifies for a buffer zone credit since the soil organic content is 1.5%, then the buffer zone can be reduced by 10%, i.e., reduced by 5 feet based on the following calculation: 50 feet – (50 feet x 10%) = 45 feet.

If the buffer zone is 50 feet and the application qualifies for two buffer zone credits since the soil organic content is 1.5% and the clay content is greater than 27%, then the buffer zone can be reduced by 20% (10% organic content credit + 10% clay content credit), i.e., reduced by 10 feet based on the following calculation 50 feet - (50 feet x 20%) = 40 feet.

Posting Fumigant Buffer Zones

- Posting of a **buffer zone** is required unless there is a physical barrier that prevents bystander access to the buffer zone.
- Buffer Zone signs must be placed along or outside the perimeter of the buffer zone, at all usual points of entry and along likely routes of approach from areas where people not under the owner's control may approach the buffer zone.
 - Some examples of points of entry include, but are not limited to, roadways, sidewalks, paths, and bike trails.
 - Some examples of likely routes of approach include, but are not limited to, the area between a buffer zone and a roadway, or the area between a buffer zone and a housing development.
 - When posting, the certified applicator supervising the application must ensure compliance with all local laws and regulations.
- Buffer Zone signs must meet the following criteria:
 - The printed side of the sign must face away from the application block toward areas from which people could approach.
 - Signs must remain legible during the entire posting period and must meet the general standards outlined in the WPS for sign size, text size, and legibility (see 40 CFR §170.120).
 - Signs must be posted no sooner than 24 hours prior to the start of the application and remain posted until the buffer zone period has expired.
 - Signs must be removed within 3 days after the end of the buffer zone period.
 - Buffer Zone signs which meet the criteria above will be provided at points of sale for applicators to use. Templates may be downloaded from <https://www.epa.gov/soil-fumigants/buffer-zone-sign-template>.
 - The Buffer Zone signs must contain the following information:
 - The 'Do Not Walk' symbol
 - DO NOT ENTER/NO ENTRE,

- TRI-CLOR FUMIGANT (Chloropicrin) BUFFER ZONE,
- Contact information for the certified applicator in charge of the fumigation.

Exception: If multiple contiguous blocks are fumigated within a 14-day period, the entire periphery of the contiguous blocks' buffer zones may be posted. Buffer Zone signs must be posted no sooner than 24-hours prior to the start of the first application. The signs must remain posted until the last buffer zone period expires, and signs must be removed within 3 days after the buffer zone period for the last block has expired.

Restrictions for Difficult to Evacuate Sites

Difficult to evacuate sites are pre-K to grade 12 schools, state licensed daycare centers, nursing homes, assisted living facilities, hospitals, in-patient clinics, and prisons.

- No fumigant application with a buffer zone greater than 300 feet is permitted within 1/4 mile (1320 feet) of difficult to evacuate sites unless the site is not occupied by children from state-licensed day care centers, students (pre-K to grade 12), patients, or prisoners during the application and the 36-hour period following the end of the application.
- No fumigant application with a buffer zone of 300 feet or less is permitted within 1/8 mile (660 feet) of difficult to evacuate sites unless the site is not occupied by children from state-licensed day care centers, students (pre-K to grade 12), patients, or prisoners during the application and the 36-hour period following the end of the application.

Emergency Preparedness and Response Measures

If the buffer zone is 25 feet, then the *Emergency Preparedness and Response Measures* are not applicable.

Triggers for Emergency Preparedness and Response Measures

The certified applicator must either follow the directions under the *Fumigant Site Monitoring* section or follow the directions under the *Response Information for Neighbors* section if:

- the buffer zone is greater than **25 feet** but less than or equal to **100 feet**, and there are residences or businesses within **50 feet** from the outer edge of the buffer zone, or
- the buffer zone is greater than **100 feet** but less than or equal to **200 feet**, and there are residences or businesses within **100 feet** from the outer edge of the buffer zone, or
- the buffer zone is greater than **200 feet** but less than or equal to **300 feet**, and there are residences or businesses within **200 feet** from the outer edge of the buffer zone, or
- the buffer zone is greater than **300 feet** or the **buffer zones overlap**, and there are residences or businesses within **300 feet** from the outer edge of the buffer zone.

Fumigant Site Monitoring

NOTE: *Fumigant Site Monitoring* is ONLY required if the *Emergency Preparedness and Response Measures* are triggered AND directions from the *Response Information for Neighbors* section are not followed.

From the start of the application until the buffer zone period expires, a certified applicator or handler(s) under his/her supervision must:

- Monitor for sensory irritation in areas between the buffer zone outer perimeter and residences and businesses that trigger this requirement.

- Monitoring for sensory irritation must begin in the evening on the day of application and continue until the buffer zone period expires. Monitor a minimum of 8 times during the buffer zone period, including these periods:
 - 1 hour before sunset,
 - during the night,
 - 1 hour after sunrise, and
 - during daylight hours.

Implement the emergency response plan immediately if a handler monitoring experiences sensory irritation.

Response Information for Neighbors

NOTE: *Response Information for Neighbors* is ONLY required if the *Emergency Preparedness and Response Measures* are triggered AND directions from the *Fumigant Site Monitoring* section are not followed.

The certified applicator supervising the application must ensure that residences and businesses that trigger the requirement have been provided the response information at least **1 week** before the application starts. The information provided may include application dates that range for no more than **4 weeks**. If the application does not occur when specified, the information must be delivered again.

Information that must be included:

- The location of the application block.
- Fumigant(s) applied including the active ingredient, name of the fumigant product(s), and the EPA Registration number.
- Contact information for the applicator and property owner.
- Time period in which the application is planned to take place (must not range more than 4 weeks).
- Early signs and symptoms of exposure to the fumigant(s) applied, what to do, and who to call if you believe you are being exposed (911 in most cases).
- How to find additional information about fumigants.

The method used to share the response information for neighbors can be accomplished through mailings, door hangers, or other methods that will effectively inform the residences and businesses within the required distance from the edge of the buffer zone.

Notice to State and Tribal Lead Agencies

If your state and/or tribal lead agency requires notice, information must be provided to the appropriate state or tribal lead agency prior to the application. Please refer to <https://www.epa.gov/soil-fumigants/complying-required-state-and-tribal-notification-soil-fumigations> for a list of states and tribal lead agencies that require notice and information on how to submit the information.

The information that must be provided to state and tribal lead agencies includes the following:

- Location of the application blocks,

- Fumigant(s) applied including EPA registration number,
- Applicator and property owner contact information, and
- Time period that fumigation may occur.

Emergency Response Plan

The certified applicator must include in the FMP a written emergency response plan that identifies:

- ☐ Evacuation routes,
- ☐ Locations of telephones,
- ☐ Contact information for first responders and local/state/federal/tribal personnel, and
- ☐ Emergency procedures/responsibilities (e.g., adding water to the field, repairing tarps, fixing equipment, evacuating upwind) if:
 - there is an incident,
 - sensory irritation is experienced outside of the buffer zone, and/or
 - there are equipment/tarp/seal failures or complaints, or other emergencies.

Site-Specific Fumigation Management Plan (FMP)

Prior to the start of application, the certified applicator supervising the application must verify that a site-specific FMP exists for each application block. In addition, an agricultural operation fumigating multiple application blocks may format the FMP in a manner whereby all of the information that is common to all the application blocks is captured once, and any information unique to a particular application block or blocks is captured in subsequent sections.

The FMP must be prepared by the certified applicator, the site owner, registrant, or other party.

The certified applicator supervising the application must verify in writing (sign and date) that the site-specific FMP(s) reflects current site conditions before the start of application.

Each site specific FMP must contain the following elements:

- Certified Applicator Supervising the Application
 - Name,
 - Phone number,
 - Pesticide applicator license and/or certificate number,
 - Specify if commercial or private applicator,
 - Employer name,
 - Employer address, and
 - Date and location of completing EPA approved soil fumigant training program.
- General site information
 - Application block location (e.g., county, township-range-section quadrant), address, or global positioning system (GPS) coordinates
 - Name, address, and phone number of application block owner
 - Map, aerial photo, or detailed sketch showing:
 - application block location
 - application block dimensions
 - buffer zone dimensions
 - property lines

- roadways
- rights-of-ways
- sidewalks
- permanent walking paths
- bus stops
- nearby application blocks
- surrounding structures (occupied and non-occupied)
- locations of Buffer Zone signs, and
- locations of difficult to evacuate sites with distances from the application block labeled.
- General application information
 - Target application date/window,
 - Fumigant Product Name, and
 - EPA registration number.
- Tarp Plan (if tarp is used)
 - Schedule for checking tarps for damage, tears, and other problems,
 - Minimum size of damage that will be repaired,
 - Factors used to determine when tarp repair will be conducted,
 - Equipment/methods used to perforate tarps,
 - Target dates for perforating tarps, and
 - Target dates for removing tarps.
- Soil conditions
 - Description of soil texture and moisture in application block,
 - Method used to determine soil moisture, and
 - Soil temperature measurement if air temperatures were above 100° F in any of the 3 days prior to the application.
- Buffer zones
 - Application method,
 - Injection depth,
 - Application rate from lookup table on label,
 - Application block size from lookup table on label,
 - Credits applied and measurements taken (if applicable),
 - Tarp brand name, lot number, thickness, manufacturer, batch number, and part number
 - Symmetry™ application system
 - Potassium thiosulfate
 - Water seal
 - Organic matter content
 - Clay content
 - Soil temperature
 - Buffer zone distance, and
 - Description of areas in the buffer zone that are not under the control of the owner of the application block. If buffer zones extend onto areas not under the control of the owner, attach the written agreement and keep it with the FMP.
- Record Emergency Response Plan as described in the *Emergency Response Plan* section.
- Posting of Fumigant Treated Area and Buffer Zone

- Person(s) who will post and remove (if different) Fumigant Treated Area and Buffer Zone signs, and
- Location of Buffer Zone signs.
- Emergency Preparedness and Response Measures (if applicable)
 - Fumigant site monitoring (if applicable):
 - When and where it will be conducted
 - Response information for neighbors (if applicable):
 - List of residences and businesses informed,
 - Name and phone number of person providing information, and
 - Method of providing the information.
- State and/or tribal lead agency advance notification (if state and/or tribal lead agency requires notice, provide a list of contacts that were notified and date notified)
- Plan describing how communication will take place between the certified applicator supervising the application, the owner, and other on-site handlers (e.g., tarp perforators/removers, irrigators) for complying with label requirements (e.g., buffer zone location, buffer zone start and end times, timing of tarp perforation and removal, PPE).
 - Name and phone number of persons contacted by the certified applicator, and
 - Date contacted.
- Handler (including Certified Applicators) Information and PPE
 - Names, addresses and phone numbers of handlers
 - Names, addresses, and phone numbers for employers of handlers
 - Tasks that each handler is authorized and trained to perform
 - Date of PPE training for each handler
 - Applicable handler PPE including:
 - Long-sleeved shirts/long pants, shoes, socks
 - Chemical-resistant apron
 - Chemical-resistant footwear
 - Protective eyewear (not goggles)
 - Chemical-resistant gloves
 - Air-purifying respirators
 - Respirator make, model, type, style, size, and cartridge/canister type
 - SCBAs
 - Respirator make, model, type, style, size
 - Other PPE
 - For handlers: Confirmation of receipt of Fumigant Safe Handling Information.
 - For certified applicator(s) supervising the application: Completion date and location of the soil fumigant training program listed on the following EPA website <https://www.epa.gov/soil-fumigants/soil-fumigant-training-certified-applicators> for the active ingredient(s) in this product.
 - For handlers designated to wear respirators (air-purifying respirator or SCBA):
 - date of medical qualification to wear a respirator,
 - date of respirator training, and
 - date of fit-testing for the respirator.
 - Unless exempted in the *Protection of Handlers* section, verify that:
 - at minimum 2 handlers have the appropriate respirators and cartridges/canisters during handler activities, and

- the employer has confirmed that the appropriate respirator and cartridges/canisters are immediately available for each handler who will wear one.
- Air monitoring plan
 - If sensory irritation is experienced, indicate whether operations will cease or operations will continue with use of an air-purifying respirator.
 - For monitoring the breathing zone:
 - Representative handler tasks to be monitored,
 - Monitoring equipment to be used, and
 - Timing of the monitoring.
- Good Agricultural Practices (GAPs)
 - Identify (e.g., list, attach applicable label section) applicable mandatory GAPs.
- Pesticide Product Labels and Material Safety Data Sheets (MSDS)
 - Ensure that labels and MSDS are on-site and readily available for employees to review.

Record-Keeping Procedures

The owner of the application block as well as the certified applicator supervising the application must keep a signed copy of the site-specific FMP for 2 years from the date of application.

For situations where an initial FMP is developed and certain elements do not change for multiple application blocks (e.g., applicator information, certified applicator, handlers, record-keeping procedures, emergency procedures) only elements that have changed need to be updated in the site-specific FMP provided the following:

- The certified applicator supervising the application has verified that those elements are current and applicable to the application block before it is fumigated.
- Record-keeping requirements are followed for the entire FMP (including elements that do not change).

The certified applicator must make a copy of the FMP immediately available for viewing by handlers involved in the application. The certified applicator or the owner of the application block must provide a copy of the FMP to any local/state/federal/tribal enforcement personnel who request the FMP. In the case of an emergency, the FMP must be made immediately available when requested by local/state/federal/tribal emergency response and enforcement personnel. The certified applicator supervising the application must ensure the FMP is at the application block during all handler activities.

Within 30 days after the application is complete, the certified applicator supervising the application must complete a Post-Application Summary.

Post-Application Summary

The Post-Application Summary must contain the following elements:

- Actual date and time of the application
- Application rate
- Size of application block
- Weather Conditions
 - Summary of the National Weather Service weather forecast during the application and the 48-hours after the application is complete including:

- wind speed, and
 - air stagnation advisory (if applicable).
- Forecast must be checked on the day of, but prior to the start of the application, and on a daily basis during the application if the time period from the start of the application until the application is complete is greater than 24 hours.
- Tarp damage and repair information (if applicable):
 - Date of tarp damage discovery,
 - Location and size of tarp damage,
 - Description of tarp/tarp seal/tarp equipment failure, and
 - Date and time of tarp repair completion.
- Tarp perforation/removal details (if applicable):
 - Date and time tarps were perforated,
 - Date and time tarps were removed, and
 - Record if tarps were perforated and/or removed early. Describe the conditions that caused early tarp perforation and/or removal.
- Complaint details (if applicable):
 - Person filing complaint (e.g., on-site handler, person off-site),
 - If off-site person, name, address, and phone number of person filing complaint, and
 - Description of control measures or emergency procedures followed after complaint.
- Description of incidents, equipment failure, or other emergency and emergency procedures followed (if applicable).
- Air monitoring results:
 - When sensory irritation was experienced:
 - Date, time, location, and handler task/activity where irritation was observed and
 - Resulting action (e.g., implement emergency response plan, cease operations, continue operations with air-purifying respirators).
 - When using a direct read detection device:
 - Sample date(s), time(s), location(s), and concentration(s),
 - Handler task/activity monitored (if applicable), and
 - Resulting action (e.g., cease operations, continue operations with air-purifying respirators).
- Drip application monitoring
 - Record monitoring date(s) and time(s)
 - Name of person(s) monitoring
 - Record observations:
 - Is the equipment functioning properly,
 - Description of corrective action (if applicable), and
 - Other comments.
- Fumigant Treated Area and Buffer Zone Signs:
 - Dates of posting and removal.
- Any deviations from the FMP (e.g., changes in emergency response actions, changes in handler information, changes in handlers responsible for completing emergency tasks, changes in communication between certified applicator, owner, and other handlers).

Record-Keeping Procedures

The owner of the application block, as well as the certified applicator supervising the application, must keep a signed copy of the Post-Application Summary for 2 years from the date of application.

Spill and Leak Procedures

Evacuate everyone from the immediate area of the spill or leak. For entry into affected area to correct problems, wear the personal protective equipment specified in the *Personal Protective Equipment (PPE)* section of this labeling. Move leaking or damaged containers outdoors or to an isolated location. Observe strict safety precautions. Work upwind, if possible. Allow spilled fumigant to evaporate or to absorb onto vermiculite, dry sand, earth, or similar absorbent material. Dispose of contaminated material on site or at an approved disposal facility. Only correctly trained and PPE-equipped handlers are permitted to perform such cleanup. Do not permit entry into the spill or leak area by any other person until the concentration of chloropicrin is measured to be 0.15 ppm or less.

Warning Agent

TRI-CLOR FUMIGANT may be used as a warning agent prior to fumigating with an EPA-registered sulfuryl fluoride product. When used as a warning agent prior to sulfuryl fluoride fumigations, users must follow requirements on the EPA-registered sulfuryl fluoride product.

***TRI-CLOR FUMIGANT is compatible
when mixed with Chlorinated C₃ Hydrocarbons.***

Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. When a cylinder is partially full, and there is no further requirement for the product, return the cylinder to the registrant or distributor. Replace safety cap and valve protection bonnet before shipping container.

Container Handling: Store cylinders upright, secured to a rack or wall to prevent tipping. Do not subject cylinders to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured. Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Return of Containers: Cylinders are the property of the registrant or distributor and must be returned promptly after use. Do not ship cylinders without safety caps or valve protection bonnets.

Refillable Container: Only the registrant or distributor is allowed to refill this container. This container can be refilled with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Container Disposal: To clean the container before final disposal, remove any remaining liquid from the container, using dry air pressure if necessary. Allow container to aerate for at least 5 days. After aeration, wash container using hot water; then offer container to qualified reconditioner or dispose of as directed by State or local regulations.

LIMITED WARRANTY

Seller warrants that this product conforms to the chemical description on its label and is reasonably fit for the purposes stated on the label when used in strict accordance with the label's directions under normal conditions of use. To the extent consistent with applicable law, THE PRECEDING WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY MADE IN CONNECTION WITH THIS PRODUCT. To the extent consistent with applicable law, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE EXPRESSLY DISCLAIMED. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

LIMITATION OF LIABILITY AND REMEDIES

Although this product has been extensively tested under a large variety of conditions, specific results cannot be guaranteed. No soil treatment will completely eradicate soil pests. Fumigation efficacy may vary due to weather, soil type and preparation, pest population density in and around the treated area, presence of crop debris, condition of irrigation systems used in drip applications as well as quality of dilution water (when applicable), and cultural practices following fumigation, among others. Soil pests may be re-introduced to treated soil by wind, rain, farm workers or equipment, contaminated irrigation water, transplanted seeds or seedlings, and other sources. For these reasons, to the extent consistent with applicable law, THE REGISTRANT OR MANUFACTURER OF THIS PRODUCT SHALL NOT BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OR LOSSES, INCLUDING WITHOUT LIMITATION, DAMAGES FOR CROP FAILURE OR REDUCED YIELDS. To the extent consistent with applicable law, THE EXCLUSIVE REMEDY FOR LOSSES OR DAMAGES RELATING TO THE USE OF THIS PRODUCT IS EXPRESSLY LIMITED TO EITHER (1) REPLACEMENT OF THE PRODUCT USED, OR (2) A REFUND OF THE PURCHASE PRICE PAID FOR THE SPECIFIC PRODUCT FOR WHICH DAMAGES ARE CLAIMED, AT THE BUYER'S DISCRETION.

ACCEPTANCE OF TERMS AND CONDITIONS

If the terms of the above Limited Warranty and Limitation of Liability and Remedies are not acceptable, you may return unopened product containers to the seller and receive a full refund. USING THIS PRODUCT CONSTITUTES ACCEPTANCE OF THESE TERMS.

Tri-Clor Fumigant

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